

1 UNITED STATES DISTRICT COURT

2 DISTRICT OF MASSACHUSETTS

3 No. 1:09-cr-10243-MLW

4
5 UNITED STATES OF AMERICA

6
7 vs.

8
9 RYAN HARRIS

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11 *****

12
13 For Jury Trial Before:
14 Chief Judge Mark L. Wolf

15
16 United States District Court
17 District of Massachusetts (Boston.)
18 One Courthouse Way
19 Boston, Massachusetts 02210
20 Thursday, February 23, 2012

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22 *****

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24 Official Court Reporter
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I N D E X

WITNESS	DIRECT	CROSS	REDIRECT	RECROSS
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CHRISTOPHER KOHLER

By Mr. Bookbinder: 72 136

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1 P R O C E E D I N G S

2 (Begins 9:00 a.m.)

3 THE CLERK: Criminal Matter 09-10243, the
4 United States of America versus Ryan Harris. The Court
5 is in session. You may be seated.

6 THE COURT: Good morning. Would counsel
7 please identify themselves for the record.

8 MR. BOOKBINDER: Good morning. Adam
9 Bookbinder and Mona Sedky for the United States.

10 MR. MCGINTY: For Ryan Harris, Charles McGinty
11 and Christine Demaso. Mr. Harris is here with us and at
12 counsel table.

13 THE COURT: All right. When the jurors were
14 coming in this morning one asked Mr. Hohler if he could
15 say something to him, Mr. Hohler said "no," and told
16 me. I said, "Well, why don't you find out what he wants
17 to say in case he says, you know, 'I did this research
18 on the internet,' or something like that, but don't
19 respond," and the juror said, "I don't understand the
20 charges."

21 I don't think there's any reason or need to
22 question the juror, but I may just say, by way of
23 preamble when they come in, "You heard a lot yesterday,
24 the indictment was read to you, you're going to have
25 that indictment with you in the jury room at the end of

1 the case and I'm going to give you detailed instructions
2 at the end of the case on what the charges are and what
3 the government has to prove beyond a reasonable doubt to
4 achieve a conviction on any or all of them."

5 Does that sound like the right approach?

6 MR. MCGINTY: It does. And I don't mean to be
7 impertinent, but certainly the parties have sort of
8 struggled to put shape into the law that supports this
9 or to question the law that supports this, and I'm not
10 surprised that a juror would be having --

11 THE COURT: You're saying you're not
12 surprised?

13 MR. MCGINTY: I'm not surprised.

14 THE COURT: No. But I just think I'll say
15 something and admonish them to listen to the evidence
16 and they'll have the indictment and detailed
17 instructions on the charges at the end of the case.

18 Okay. Do you have any stipulations for me?

19 MR. MCGINTY: There's one -- there's one
20 ingredient, and, your Honor, we have been working on
21 this --

22 THE COURT: It's okay.

23 MR. MCGINTY: -- and I have to say that it is
24 unusual and a pleasure to work with government counsel
25 where the issues are really being addressed and there's

1 no gamesmanship here. So certainly from my perspective
2 there's an intent to iron out -- there's an issue about
3 something that the government wants, in effect, there's
4 a quid pro quo for another stipulation, and we're trying
5 to iron that out, um, and --

6 THE COURT: All right.

7 MR. BOOKBINDER: Your Honor, it's probably
8 worth noting that this is a situation where I think
9 there are a couple of factual stipulations that we can
10 probably reach, but they're really not of much
11 significance, they're background things. The more
12 significant ones are evidentiary and they have to do
13 with exhibits that are coming later. So I know
14 typically a court would want to read the actual
15 stipulations earlier, but this isn't about the --

16 THE COURT: All right. As long as it's not
17 impacting the progress of the case, then that's fine.

18 MR. BOOKBINDER: No. I don't think so at all.

19 THE COURT: All right.

20 Is Ms. Lindquist here now?

21 MR. BOOKBINDER: She is not. She's coming at
22 -- we've asked her to come at 11:00 today.

23 THE COURT: Okay. I'll want to question her
24 at the break as to whether she intends to assert a Fifth
25 Amendment right and if she does, based on what I know,

1 she has a valid Fifth Amendment right, and therefore
2 I'll give her an immunity order.

3 So we're going to complete -- continue and I trust
4 complete Mr. Philips's testimony. Then we're going to
5 go to Kohler.

6 As far as I know there are no issues relating to
7 -- evidentiary issues for me to rule on now, at least,
8 with regard to his testimony?

9 MR. BOOKBINDER: No, there aren't, your
10 Honor. There's one, um, I guess it would be an exhibit
11 that Mr. McGinty and I spoke about, um, and we're in
12 agreement on this and it's -- I'm going to ask him,
13 "This is a Motorola modem?" and, um, it happens to be
14 the one that Special Agent Russell bought from TCNISO,
15 but that I wouldn't get into with Mr. Kohler. But I
16 just want to ask him to identify and describe it. And
17 I'd like, actually, if everyone agrees, to at least have
18 it handed to the jury so that they can just take a look
19 at it, and I don't think there's any objection to that.

20 MR. MCGINTY: Your Honor, if I could just have
21 a moment?

22 (Pause.)

23 MR. MCGINTY: That's by agreement, your Honor.

24 MR. BOOKBINDER: If Mr. McGinty wants both of
25 these, then we'll use both.

1 THE COURT: Two modems?

2 MR. MCGINTY: Two modems.

3 THE COURT: That's fine. And Mr. Kohler's
4 going to give some expert testimony and some fact
5 testimony, is that right?

6 MR. BOOKBINDER: That's right, your Honor.

7 THE COURT: All right.

8 Well, why don't we get the jurors. They're all
9 here promptly. And then we can bring Mr. Phillips back
10 and put him on the stand. Okay?

11 (Jury entering, 9:10 a.m.)

12 THE COURT: Ladies and gentlemen, good
13 morning. Welcome back. We're going to proceed with
14 Mr. Phillips, who can resume the witness stand. But
15 before we start, let me tell you the following and
16 hopefully relieve any anxiety.

17 Mr. Hohler read you yesterday that long indictment
18 of the charges and then I gave you a brief overview of
19 the law. As I said yesterday, at the end of the case
20 you're going to have the indictment there and I'm going
21 to tell you, in great detail, what the charges are and
22 everything the government needs to prove beyond a
23 reasonable doubt to prove any or all of the charges. So
24 just listen to the evidence carefully and at the end of
25 the case, as I said, in the jury room you'll have the

1 indictment, the charges, and you'll also have much more
2 information on what the relevant questions are and what
3 standards you have to apply in answering those
4 questions. Okay?

5 All right. Mr. Phillips, do you understand that
6 you're still under oath?

7 THE WITNESS: Yes.

8 THE COURT: All right. Mr. Bookbinder, you
9 may continue.

10 MR. BOOKBINDER: Thank you, your Honor.

11

12 DIRECT EXAMINATION BY MR. BOOKBINDER: (Continued.)

13 Q. Good morning, Mr. Phillips.

14 A. Good morning.

15 Q. Okay. When we left off, I had asked you about some
16 of the excerpts of the chat logs between you and
17 Mr. Harris and I'd like to show you another one of those
18 right now.

19 THE COURT: What are we in, Exhibit 5?

20 MR. BOOKBINDER: Oh, I apologize, your Honor.
21 This is Exhibit 5. And I'd like to show a portion of
22 this to the jury.

23 (Blows up on screen.)

24 Q. So this is Page 14 of Exhibit 5.

25 And the date on this is February 15th, 2005,

1 correct?

2 A. Correct.

3 Q. Now, um, I want to ask you about a portion of this
4 excerpt and I'll scroll over to try to get everything on
5 the page. Then again, um, let me just show you the
6 whole thing.

7 Again, is it the case that the portion that is not
8 highlighted is what you were writing and the highlighted
9 portions are what Mr. Harris was writing using the name
10 "DerEngel"?

11 A. Yes.

12 Q. All right. Now I'm going to scroll over so we may
13 not now see the speaker name, but I want to make sure to
14 get the whole line of text and everything. All right.

15 Okay. Now -- and I'll ask you to read a portion
16 of this, but if you look at the, um, middle of this
17 page, you see there's a reference to -- you say
18 something about, "That's our hotel in Berlin," is that
19 right? Do you see that?

20 A. Yes.

21 Q. Do you remember a discussion with Mr. Harris about,
22 um, are you talking about going to Germany at some
23 point?

24 A. Possibly.

25 Q. So do you remember that?

1 A. Yes.

2 Q. Okay. And do you remember what the context was for
3 a discussion about going to Germany?

4 A. Um, someone approached me on an internet-related
5 chat saying that they wanted to make a purchase, and
6 then I told Ryan about it, but it eventually fell
7 through.

8 Q. Okay, but why were you telling him about -- well,
9 what does this have to do with Germany?

10 A. They were going to have some sort of cable-hacking
11 modem convention, is what they stated.

12 Q. Where was that convention, where did they tell you
13 that was going to be?

14 A. In Germany.

15 Q. And that was why, at this point, you had some
16 discussions about going to Germany and staying in a
17 hotel there?

18 A. Yes.

19 Q. All right. Now, um, I'd like you to read the
20 portion starting in the middle of the excerpt that's on
21 the screen with "How much do you want?" Can you read
22 that.

23 A. "How much do you want to sell Sigma licenses for in
24 a mass volume of 10,000 of them."

25 THE COURT: Excuse me. Not too fast because

1 the jury has to understand what you're saying and the
2 stenographer has to write it down. So please do that
3 once more.

4 A. "How much do you want to sell Sigma licenses for in
5 a mass volume of 10,000 of them? Surfboard 3100. They
6 want to use these to steal service. We have to show
7 them how to steal service, too."

8 Q. Let me stop you right there.

9 So you're saying, "How much do you want to sell
10 Sigma licenses for?" What's a Sigma license?

11 A. A license is, um, something that we were offering to
12 customers when they purchased Sigma. It was a unique ID
13 that each cable modem had and it had to be compiled on
14 our computer specifically.

15 Q. So for someone to use a copy of the Sigma program,
16 they needed to have a license from TCNISO, essentially,
17 to use it, is that right?

18 A. That's correct.

19 Q. And what was the purpose of that, requiring
20 licenses?

21 A. Um, so that if someone, um, illegally took one or
22 they copied that license and gave it to someone else, it
23 wouldn't work on that specific modem.

24 Q. Sort of like a copyright protection, essentially?

25 A. That's correct.

1 Q. Okay. All right. So if you needed -- if you wanted
2 to use the Sigma program, you needed to have a license.
3 If someone wanted to buy 10,000 licenses, is that
4 essentially 10,000 copies of the software program?

5 A. That's correct.

6 Q. Okay. And then you say: "They want to use these to
7 steal service. We have to show them how to steal
8 service, too." I'll read the Harris part. And, I'm
9 sorry, the question was, "How much do you want to sell
10 these for?"

11 A. That's correct.

12 Q. And then DerEngel: "2 dollars apiece, 20,000 USD,
13 sounds good to me."

14 A. Okay.

15 Q. Um, expletive. "For \$20,000, man, I'll give them
16 unlimited licenses."

17 A. "I'm going to try and get passport."

18 Q. So you're talking now about the passport is the trip
19 to Germany?

20 A. That's correct.

21 Q. Um, did this deal, 10,000 licenses for \$20,000, did
22 that ever happen?

23 A. It never occurred, to my knowledge.

24 Q. And why not?

25 A. Um, it started to seem a little sketchy and shady.

1 I told Ryan about it. Um, things weren't working out
2 right. It didn't seem like it was going to happen. I
3 passed it on to him. I haven't heard about it since.

4 Q. Um, when you sold --

5 MR. BOOKBINDER: Let's take that off the
6 screen and focus on the question.

7 Q. When you sold the TCNISO modified modems and
8 software, what did you intend the customers to use them
9 for, what did you understand the people to use them for?

10 MR. MCGINTY: Objection.

11 THE COURT: The objection's overruled for the
12 reasons discussed prior to trial. But this is
13 admissible under Rule 801(d)(2) and also 8033.
14 Actually, 8033.

15 Go ahead.

16 A. Can you repeat the question?

17 Q. Sure.

18 When you sold modified modems to people or copies
19 of the Sigma program, what did you intend them to use
20 those for?

21 A. They were intended either for the customer to uncap
22 their modem or to steal service.

23 Q. You were charged with a crime for your -- for what
24 you did with TCNISO, is that correct?

25 A. Yes.

1 Q. What was the crime you were charged with?

2 A. Aiding and abetting computer fraud.

3 Q. And, um -- now I'd like to show you --

4 MR. BOOKBINDER: Your Honor, I'd like to show
5 the witness a document that's not yet in evidence and
6 this has been marked as Exhibit 26.

7 I'll stop.

8 THE COURT: All right. The jurors' monitors
9 are off.

10 MR. BOOKBINDER: Thank you, your Honor.

11 (Shows to witness.)

12 Q. Do you see that in front of you?

13 A. Yes.

14 Q. Do you recognize that document?

15 A. Yes.

16 Q. What is that?

17 A. That's a proffer letter between me and the U.S.
18 Attorney.

19 Q. Is it --

20 MR. BOOKBINDER: Let me blow it up a little
21 more.

22 (Enlarges on screen.)

23 Q. Is this, in fact, a plea agreement?

24 A. Yes.

25 Q. Okay. This is your plea agreement with the U.S.

1 Attorney's office?

2 A. Yes.

3 MR. BOOKBINDER: Your Honor, the government
4 offers this as Exhibit 26.

5 MR. MCGINTY: No objection.

6 THE COURT: Okay. It is admitted as Exhibit
7 26 and now it's on the jurors' monitors.

8 (Exhibit 26, marked.)

9 Q. And this agreement, which is dated August 3rd, 2010,
10 did you sign that?

11 A. Yes, I did.

12 Q. Can you read -- I'm just going to ask you to read
13 the first sentence under Paragraph 1.

14 A. "At the earliest practicable date, defendant shall
15 waive indictment and plead guilty to attached one-count
16 information charging him with violating 18 USC 1032,
17 aiding and abetting computer fraud and abuse."

18 Q. If you need to, you can feel free to have a drink.

19 Did you, in fact, plead guilty to that charge?

20 A. Yes.

21 Q. What's the status now of your criminal case?

22 A. It's pending sentencing.

23 Q. Are you hoping that the government will recommend a
24 reduced sentence for you as a result of your cooperation
25 in this case?

1 A. Yes.

2 Q. What's your understanding about who is it that will
3 ultimately decide what sentence you get in that case?

4 A. The judge.

5 Q. What do you understand to be your obligation? This
6 plea agreement, this is a multi-page document, correct?

7 A. Yes.

8 Q. And we haven't gone through all of it, but
9 essentially what do you understand your obligation to be
10 under the plea agreement?

11 A. My obligation is to give all truthful information
12 and to stand on this witness stand and tell the truth.

13 Q. And what do you understand to be the consequence if
14 you don't do that?

15 A. Five years in prison.

16 Q. What about the, um --

17 MR. BOOKBINDER: I'll withdraw that.

18 Okay. Now, um -- well, actually, let me clarify that.

19 Q. Um, when you say five years imprisonment, is that
20 the maximum sentence you could face on this charge?

21 A. That's correct.

22 Q. And is it your understanding that that is the
23 sentence you would get if you didn't cooperate?

24 A. Um, I believe it would be 0 to 6 months.

25 Q. Okay. So you're saying if the sentence -- whether

1 you cooperate or not, your understanding is the sentence
2 you would get is likely to be 0 to 6 months?

3 A. That's correct.

4 Q. What's that based on?

5 A. Um, a point system.

6 Q. You're familiar with the sentencing guidelines, is
7 that what you're talking about?

8 A. Semi-familiar with it.

9 Q. Yeah, I'm not suggesting -- I'm not asking you
10 whether you're intimately familiar with the book. But
11 are you talking about a sentencing guideline range of 0
12 to 6 months that would apply to your crime?

13 A. Yes.

14 Q. And that's whether you cooperated in this case or
15 not?

16 A. Yes.

17 Q. All right. Are you familiar with, um, a portion of
18 the TCNISO.net website called "Forums"?

19 A. Yes.

20 Q. And what were the forums, how would you describe
21 them?

22 A. Um, they were an area for people to gather and share
23 information.

24 Q. Did you look at them when you worked for the
25 company?

1 A. Yes, occasionally.

2 Q. How often?

3 A. Um, at the beginning quite often, almost every day,
4 and towards the end, almost never.

5 Q. Were the forums useful for the work that you and
6 Mr. Harris did for the TCNISO business?

7 MR. MCGINTY: Objection. Leading.

8 THE COURT: Overruled.

9 Q. You can answer.

10 A. What's the question?

11 Q. The question is, were they useful for the business,
12 the TCNISO business?

13 A. Yes.

14 Q. In what ways?

15 A. People would share information about problems with
16 the software or problems they were having with the ISP.
17 Um, they could trade config files and --

18 Q. Actually let me just stop you there and ask you
19 about each of those.

20 The first thing you said is that people could
21 share problems they were having with the software or
22 with the ISPs?

23 A. That's correct.

24 Q. And when you looked at forums, did you see posts
25 like that, at times?

1 A. Yes.

2 Q. What if anything did you or Mr. Harris do in
3 response to those posts, did it affect how you ran
4 business with the products?

5 A. Um, most of the time what I would do is I'd tell
6 Ryan about them and then that information would be
7 passed on to him and he would decide what would be done.

8 Q. Were there situations where those kinds of comments
9 resulted in updates to the products?

10 A. Always.

11 Q. And then, um -- and you also mentioned that there
12 were posts about trading MAC addresses and configuration
13 files?

14 A. Yes.

15 Q. All right. Did you talk to Mr. Harris about -- so
16 you said you talked to Mr. Harris about those posts as
17 well, is that right?

18 A. That's correct.

19 Q. And did he give you any instructions about posts
20 that listed MAC addresses on the forums?

21 A. That's correct. He wanted me to remove them because
22 they could be damaging to the company.

23 Q. Based on your conversations with Mr. Harris, what
24 did you learn about how often he looked at the TCNISO
25 forums?

1 A. As far as I knew, every day, to the best of my
2 knowledge.

3 Q. Um, during the years that you personally used the
4 products, the TCNISO products, um, did you need to get
5 MAC addresses or different MAC addresses for the modems
6 you were using?

7 A. Occasionally.

8 Q. And where did you get MAC addresses over time when
9 you needed one?

10 A. At first I got them from trading -- from meeting
11 people on the forums and then trading, either through
12 IRC or through the forums.

13 Q. When you say "IRC," what -- this is the "Internet
14 Relay Chat"?

15 A. That's correct.

16 Q. Was there a particular chat room or channel you were
17 using to sort of get these MAC addresses?

18 A. Yes, it was called "pound surfboard."

19 Q. And, um, who was, um -- what was that chat room for?

20 A. That chat room was also posted on the web page for
21 someone to find to have help with working their cable
22 modems or to make purchases. They were able to go there
23 and then they were told how to purchase.

24 Q. When you say the website, what website are you
25 talking about?

1 A. TCNISO.net.

2 Q. So essentially there was a link between the website
3 and this pound surfboard chat room?

4 A. Yes, there was at one point.

5 Q. Um, getting back to the forums. Are you familiar
6 with the members' forums?

7 A. Yes.

8 Q. What was different about the members' forums portion
9 of the TCNISO website?

10 A. It was private and you could only get in there if
11 you purchased the product.

12 Q. Could you also just buy a membership to the forums,
13 just pay for that?

14 A. Not that I can recall.

15 Q. You don't remember. Okay.

16 Who was it that, um, controlled access to the
17 members' forums?

18 A. Um, Ryan Harris and myself and I believe Derrick
19 Rima.

20 Q. And I'd like to just show you another excerpt of
21 Exhibit Number 5.

22 THE COURT: What page is that, please?

23 MR. BOOKBINDER: This is Page 17, your Honor.

24 Q. This is March 29th of 2005?

25 A. That's correct.

1 Q. Again, this is between, um -- a chat between you and
2 Mr. Harris. All right. Why don't you read the portion
3 that is not highlighted, and that is you speaking, and
4 I'll read the Harris portion.

5 A. "User Bronx on forums needs to be activated on
6 forums. He can't log in. It says you need to be
7 activated from administrator. No link in e-mail.
8 Hello."

9 Q. "Okay. Okay. Activated."

10 A. "Thanks."

11 Q. Was this you asking Harris to activate someone on
12 the members' forum?

13 A. That's correct.

14 Q. And why did ask him to do that?

15 A. Because at that time I believe I didn't have access.

16 Q. (Pause.) And I want to get back to -- I know you
17 testified briefly about the pound surfboard chat room?

18 A. That's correct.

19 Q. That was another way for people -- feel free to take
20 a drink.

21 That was another way for people to communicate
22 about the TCNISO products?

23 A. That's correct.

24 Q. Did you go to that -- and actually let me back up a
25 second.

1 Um, this is different than the one-on-one kind of
2 chats we've been looking at in Exhibit 5, is that
3 correct?

4 A. That's correct. You could also have one-on-one
5 chats in there also, though.

6 Q. But the meeting room itself, how is it different?

7 A. It has a multiple amount of people in it and anyone
8 can enter it by using the program.

9 Q. When you are in the chat room -- when we say "in the
10 chat room," I mean you're physically sitting at your
11 computer, right?

12 A. That's correct.

13 Q. But your computer is essentially logged into this
14 room?

15 A. That's correct.

16 Q. Could you see who else was in the room with you?

17 A. Yes.

18 Q. How often did you go to that pound surfboard chat
19 room while you were working for TCNISO?

20 A. Um, probably every day.

21 Q. When you were in the chat room, how often was
22 Mr. Harris in there as well?

23 A. Just as much, if not more.

24 Q. How about the -- and what name did he use when he
25 was in the chat room?

1 A. DerEngel, D-E-R-E-N-G-E-L.

2 Q. Okay. Let me ask you about another person. Are you
3 familiar with someone who used the internet name, the
4 name, "DShocker"?

5 A. Yes.

6 Q. And that's -- you remember that name being the
7 Capital D and then Shocker, S-H-O-C-K-E-R?

8 A. Yes.

9 Q. How is it you're familiar with this person?

10 A. This gentleman always wanted to be a part of
11 TCNISO. He always wanted to be involved. He wanted to
12 help sell or do whatever he could to be a part of
13 TCNISO.

14 Q. How do you know that?

15 A. Because he came to me and I spoke with him on IRC
16 and MSN Messenger and then eventually at one point
17 Mr. Harris told me to forget about him, not to talk to
18 him, that he's an idiot.

19 Q. So when you say he came to you, again, did you ever
20 meet him in person?

21 A. No, only on the internet.

22 Q. So you, um -- and you communicated with him directly
23 in private chats through MSN Messenger, is that right?

24 A. That's correct.

25 Q. When you -- and did you know his real name?

1 A. No.

2 Q. When you were chatting with the person who went by
3 "DShocker," um, you said he told you he wanted to be
4 part of the company, is that right?

5 A. That's correct.

6 Q. What kinds of things did you tell him or talk to him
7 about?

8 A. Mostly I just talked to him about that, a little bit
9 about Sigma, but mostly he really just wanted really
10 desperately to be part of TCNISO.

11 Q. Did the two of you talk back and forth about the
12 TCNISO products?

13 A. Um, occasionally, but very little. But, like I
14 said, I passed him off to Ryan at one point and he just
15 continued to tell me, "He's an idiot. Don't talk to
16 him."

17 Q. Do you remember DShocker, whether he made posts on
18 the TCNISO forums?

19 A. Um, I can't recall.

20 Q. How about the pound surfboard chat room, was he in
21 there as well?

22 A. Um, occasionally he was in there.

23 Q. Do you remember being in that chat room with both
24 DShocker and Harris at the same time?

25 A. I would presume so due to the fact that Ryan Harris

1 was in there all the time, as much if not more than I
2 was, and I've seen DShocker in there at the same time I
3 was there and Ryan.

4 Q. (Pause.) Was there a period of time when, um, Ryan
5 Harris lived outside the U.S.?

6 A. Yes. To my knowledge, yes.

7 Q. Where was he living?

8 A. Hong Kong.

9 Q. When was this, if you remember?

10 A. 2005, I believe.

11 Q. How do you know that he was living in Hong Kong?

12 A. Um, he told me about it.

13 Q. Again, were you talking to him on the phone or was
14 this by chat?

15 A. Um, by chat and by phone.

16 Q. And is there some other way that you know he was in
17 Hong Kong?

18 A. Eventually I went there to visit and have a good
19 time, except for the day before, when he told me he was
20 getting married in Hong Kong.

21 Q. So you were going to go over for a visit and then he
22 told you he was getting married as well?

23 A. That's correct.

24 Q. Um, and did you end up going to his wedding while
25 you were there?

1 A. Yes.

2 Q. All right. After Mr. Harris got married, did he
3 continue to live in Hong Kong?

4 A. Um, to my knowledge for -- for maybe a little bit
5 and then he came back and lived at the apartment we
6 lived at.

7 Q. He came back and moved back into the apartment with
8 you?

9 A. That's correct.

10 Q. What about his wife?

11 A. At one point she moved back, too.

12 Q. So she lived in the apartment, also?

13 A. That's correct.

14 Q. What was her name?

15 A. Carley Harris.

16 Q. When she moved in the apartment with you, did she
17 have anything to do with TCNISO?

18 A. Yes.

19 Q. Um, did she start working for the company?

20 A. That's correct, she started doing my job duties.

21 Q. Which were what?

22 A. Um, packaging, making products by hand, um, shipping
23 the products, and basically helping Ryan in any way
24 possible.

25 Q. What was your reaction to that?

1 A. I felt like I wasn't needed anymore.

2 Q. Was there, um, something specific that motivated you
3 to leave the company at some point?

4 A. Yes, and on a few occasions -- on one occasion
5 specifically, um, I had overheard a conversation between
6 Ryan Harris and Derrick Rima stating that -- it was a
7 voice chat, stating that --

8 Q. Wait. Let me stop you right there, before you say
9 the substance of it. It was a voice chat. What's a
10 voice chat?

11 A. Um, basically on MSN Messenger you can type text and
12 you can also have a voice conversation, like a
13 telephone.

14 Q. So it's like a telephone except you're just talking
15 into your computer?

16 A. That's correct.

17 Q. And hearing the other person on the computer?

18 A. That's correct.

19 Q. All right. Go on. So you heard a voice chat
20 between Ryan Harris and Derrick Rima. What did you
21 hear?

22 A. I heard at that time, "Oh, we'll just blame it all
23 on Craig if something happens, if we get in trouble."

24 Q. Who said that?

25 A. Um, Ryan Harris.

1 Q. So you remember it being Harris that said that as
2 opposed to Rima?

3 A. That's correct.

4 Q. "We'll blame it all on Craig if something --"

5 MR. MCGINTY: Objection.

6 Q. Well, what did he say? let me ask you again,
7 because I don't -- or we could have the Court Reporter
8 read it back, what it was you heard Ryan Harris say?

9 A. "We'll blame it on Craig if something goes wrong."

10 Q. Um, what did you understand that to mean?

11 A. Um, I knew that what we were doing already was --

12 MR. MCGINTY: Objection.

13 THE COURT: Okay. Overruled.

14 Q. You can answer.

15 A. I believed that what we were already doing was
16 illegal, and I knew that, and I was already pretty much
17 prepared, due to the fact that his wife was already
18 starting to do my job duties, that I was no longer
19 useful for the company. So I felt that at that time I
20 needed to slowly start moving out of my apartment and I
21 did that over the course of a month, I slowly moved out.

22 Q. So, um, and I want to get to that in a second, but
23 before I do that, um, were you worried about getting in
24 trouble for what you did with TCNISO?

25 A. Yes.

1 Q. Do you remember ever discussing this with Ryan
2 Harris?

3 A. Yes.

4 Q. Do you remember what he said?

5 A. Um, "Don't worry about it. They can't touch us."

6 Q. Let me show you one more page of Exhibit 5. This is
7 Page 7.

8 This is January 25th of 2005, is that right?

9 A. That's correct.

10 Q. All right. Now, um, again, I'll read the Harris
11 parts and you can read your parts.

12 It says: "Go to www.TCNISO.net and click on
13 contact."

14 A. "Nice. Nice."

15 Q. All right. So he's directing you to click on a
16 contact portion of the web page?

17 A. Yes, a link.

18 Q. Do you remember what you saw there that caused you
19 to say "Nice. Nice"?

20 A. The TCNISO phone number was now available.

21 THE COURT: I'm sorry. Was what?

22 THE WITNESS: The TCNISO.net telephone number
23 was now available for customers to view.

24 Q. Harris: "LOL." What does that -- let me stop you.
25 What does that mean, "LOL"?

1 A. "Laugh out loud."

2 Q. And, again, the next line has what I would describe
3 as carats essentially around the word that says
4 "cancow," and then there's some text and it says
5 "cancow," again.

6 Um, before I read it, what do you understand that
7 to be?

8 A. That would be an excerpt from IRC, someone probably
9 posted this on the IRC general surfboard, um, and that's
10 the name of someone visiting that IRC chat room.

11 Q. So, um -- all right. So someone posts the
12 following: "Wow, TCNISO gives out a phone number." And
13 then DerEngel going on to say, um --

14 Well, is this entire two-line excerpt, you
15 believe, what was posted by someone else?

16 A. That's correct.

17 Q. And he's just sending it to you?

18 A. That's correct.

19 Q. All right. I'll read it again.

20 "Wow, TCNISO gives out a phone number. I'm
21 surprised the cable companies don't figure out who owns
22 it so they can kill DerEngel."

23 A. "Laugh out loud."

24 Q. All right. And then below there, is that a smiley
25 face?

1 A. That's correct.

2 Q. All right. So was this, um, one of the things you
3 talked about with Mr. Harris about cable companies
4 coming after you?

5 A. Um, yes.

6 Q. All right. And what about law enforcement?

7 A. Um, yes. What had happened was there was a white
8 van parked out in front of my parents' house for about a
9 week. So I was a little afraid. We also --

10 Q. Wait. Let me just stop you there. There was a
11 white van parked in front of your parents' house and you
12 said you were afraid. What were you afraid of?

13 A. I was afraid it possibly might have been the FBI or
14 law enforcement of some sort.

15 Q. And did you mention that to Mr. Harris?

16 A. Yes.

17 Q. What did he say?

18 A. "Don't worry about it."

19 Q. (Pause.) After you overheard the conversation with
20 Derrick Rima that you testified about --

21 A. That's correct.

22 Q. -- you said that you started to slowly move out of
23 the apartment?

24 A. That's correct.

25 Q. Did you tell Ryan Harris you were moving out?

1 A. No way.

2 Q. At some point, in addition to taking your personal
3 property, clothes and things out, did you do anything
4 else?

5 A. Yes, what I did was, um, I took as much information
6 as I could off the computers in the house, including
7 his, and the one in the center computer, in the living
8 room. I copied them to my hard drive and I burned CDs
9 right there.

10 Q. And that's what you discussed yesterday, correct?

11 A. That's correct.

12 Q. All right. Um, what about money?

13 A. Money, yes. I did go to the Washington Mutual bank
14 account and I withdrew \$5,000 from two different
15 branches because I felt I was due the compensation.

16 Q. So you took a total of \$10,000?

17 A. That's correct.

18 Q. You said you were due compensation for what?

19 A. For my 5 percent share because I was leaving the
20 company.

21 Q. All right. Did you ever -- up to that point had you
22 ever been paid for any of the work you'd done for the
23 company?

24 A. No, but I did receive a computer at Christmas as a
25 gift.

1 Q. No salary or cash or anything like that?

2 A. No.

3 Q. After you took the money, um, what happened?

4 A. Um, right then and there Ryan called me and stated
5 that the bank had called him and he said, "I know what's
6 happened," and he called me and then called my parents,
7 told them, I went to my parents, talked with them --

8 Q. Okay, let me slow you down.

9 A. Okay.

10 Q. So he called you and told you he had gotten a call
11 from the bank and he knew that you had taken this money?

12 A. That's correct.

13 Q. He also then called your parents to say you had
14 taken this money?

15 A. That's right.

16 Q. At that point what did you do?

17 A. At that point I went home, talked to my parents, and
18 they talked some sense into me and said, "You know
19 what? It's not worth it."

20 MR. MCGINTY: Objection.

21 Q. Setting aside what -- let's not talk about what your
22 parents said to you. But you had a conversation with
23 your parents --

24 A. That's correct.

25 Q. -- and what did you then do?

1 A. I gave back the money.

2 Q. To?

3 A. To Ryan Harris.

4 Q. Okay. And at that point did you talk to him about
5 whether you were continuing on with TCNISO?

6 A. No, I told him that I was finished, that I was no
7 longer working for the company.

8 Q. So you quit?

9 A. That's correct.

10 Q. And was that, in fact, the end of your involvement
11 with the company?

12 A. That's correct.

13 MR. BOOKBINDER: Your Honor, if I could just
14 have a moment?

15 THE COURT: Yes.

16 (Pause.)

17 MR. MCGINTY: No further questions.

18 THE COURT: Mr. McGinty, you may cross-
19 examine.

20 MR. MCGINTY: Thank you very much.

21 THE COURT: From the podium. But make sure
22 that the witness keeps his voice up and the jury can
23 hear him.

24 MR. MCGINTY: Yes, sir.

25

1 CROSS-EXAMINATION BY MR. MCGINTY:

2 Q. Good morning, Mr. Phillips.

3 A. Good morning.

4 Q. My name is Charles McGinty and I represent Ryan
5 Harris.

6 You were first questioned by agents in this case
7 in October of 2010 -- no.

8 In October of 2009, you were first questioned by
9 agents, do you remember?

10 A. I can't recall the exact date.

11 Q. Okay. Now, at the time they questioned you, you
12 were accompanied by your father, were you not?

13 A. That's correct.

14 Q. You told them at the time that you were not sure
15 what the firmware's capabilities were. Do you remember
16 saying that?

17 A. I do recall saying that.

18 Q. And the firmware is a combination of the hardware
19 and the software that TCNISO made, am I right?

20 A. That's correct.

21 Q. So when you said that you were not sure of what the
22 TCNISO's firmware capabilities were, you added one
23 thing, which was that you knew it was capable of
24 uploading FTP files but you weren't sure of what the
25 program's capabilities were. Do you remember saying

1 that?

2 A. Yes.

3 Q. You also said that your friend, Brian Deathridge,
4 and Harris and you, met to play computer games in
5 Phoenix back in the period between somewhere in the area
6 of 2001. Do you remember telling them that?

7 A. Yes.

8 Q. Do you remember not telling them that at the time
9 Mr. Harris brought in a modified modem to aid you in
10 those computer games?

11 A. I can't recall.

12 Q. Um, you also said that you couldn't recall any posts
13 on TCN concerning free internet. Do you recall saying
14 that?

15 A. Yes, understanding though that --

16 Q. No, just do you recall saying it?

17 A. Yes.

18 Q. And you also recall saying that you had a falling
19 out with Harris and that the relationship got difficult
20 when Harris's wife moved in. Do you remember saying
21 that?

22 A. Yes.

23 Q. You also said that, quote, "You needed a change of
24 lifestyle"?

25 A. That's correct.

1 Q. "You were living beyond your means and you were tens
2 of thousands of dollars in debt." Do you remember
3 telling them that?

4 A. At that time I was in debt?

5 Q. Okay. Did you say to them there was a white van?

6 A. I can't recall.

7 Q. Did you say to them that "I believe what I was doing
8 was illegal"?

9 A. I can't recall.

10 Q. Now, in this conversation that you were having with
11 the agents, you were trying to be truthful, am I right?

12 A. No, I was protecting myself.

13 Q. You were protecting yourself. I see.

14 So in protecting yourself, you understood you were
15 talking to Federal agents, right?

16 A. That's correct, but not under oath.

17 Q. Oh, not under oath. So you can choose, if I
18 understand this right, whether to tell the truth or not
19 based upon whether you're under oath or not, correct?

20 A. No, I didn't say that.

21 Q. So when the agents came to talk to you, you reserved
22 the right, to yourself, to lie about things. Do I
23 understand that right?

24 A. That's correct.

25 Q. When you told them that you did not -- that you were

1 not sure of TCN'S firmware capabilities, is your
2 testimony now that you were lying?

3 A. Is my testimony now that I'm lying?

4 Q. That you were lying when you said that to them.

5 A. At the time I was withdrawing back to protect
6 myself.

7 Q. Did you lie?

8 A. At that time, yes.

9 Q. Okay. When you said you were tens of thousands of
10 dollars in debt, were you lying?

11 A. No.

12 Q. When you said that you -- that your relationship got
13 difficult when Harris's wife moved in, were you lying?

14 A. No.

15 Q. When you said that you needed a change of lifestyle
16 and you were living beyond your means in tens of
17 thousands in debt, were you lying?

18 A. No.

19 Q. Now, since that time you met with the government,
20 and that was October 20th of 2009, am I right?

21 A. Uh-huh.

22 Q. You met with them on November 19th, 2009?

23 A. That's correct.

24 Q. You met with them on January 14th of 2010, correct?

25 A. Correct.

1 Q. You called them on February 2nd, 2011, am I right?

2 I'm sorry, 2012. Am I right?

3 A. I can't recall.

4 Q. You met with them on February 8, 2012, just a short
5 few weeks ago, am I right?

6 A. On the telephone, yes.

7 Q. And you met with them on February 21st, two days
8 ago, am I right?

9 A. Yes.

10 Q. So between your calling them and your meeting with
11 them, you have spoken to the agents or the government,
12 1, 2, 3, 4, 5, 6 times, fair to say?

13 A. Correct.

14 Q. And during those times you discussed what your
15 testimony was going to be, am I right?

16 A. Well, we discussed various things about the
17 information that I withheld and I gave to them at that
18 time.

19 Q. And you also discussed with them what was going to
20 happen to you, am I right?

21 A. Um, at the very first meeting? Yes.

22 Q. No, sir. Did you discuss --

23 THE COURT: I'm sorry. Excuse me. Excuse
24 me.

25 You've asked him a question that covers six

1 conversations and I think he was trying to break it
2 down. So either put the question again or let him
3 answer it.

4 Q. At any time during those meetings, did you discuss
5 what was going to happen to you?

6 A. At the very beginning, yes.

7 Q. Yes or no?

8 A. Yes.

9 Q. At the beginning -- the agents told you that you
10 were not in any trouble, isn't that true?

11 A. Yes.

12 Q. They told you that the focus of their investigation
13 was on Ryan Harris, isn't that true?

14 A. Yes.

15 Q. They told you that if you cooperate you may not get
16 charged with a crime, isn't that true?

17 A. Not that I recall.

18 Q. Do you recall them telling you that you might get
19 immunity and not be charged at all?

20 A. Not that I can recall.

21 Q. At some point they brought a charge against you, did
22 they not?

23 A. Yes.

24 Q. Now, the charge they brought against you was not
25 wire fraud, was it? Yes or no. Was it wire fraud?

1 A. It was aiding and abetting.

2 Q. It was aiding and abetting what?

3 A. Computer fraud.

4 Q. Computer intrusion, am I right?

5 A. It says "computer fraud."

6 (Pause.)

7 MR. MCGINTY: May I approach the witness, your
8 Honor?

9 THE COURT: Yes. You can also -- actually,
10 why don't you put it up on the monitor.

11 MR. MCGINTY: Well, this will be more compact
12 and I'll be very brief with it, your Honor.

13 THE COURT: Well, eventually the jury will
14 need to see it. You can ask if it refreshes his
15 recollection.

16 Here, we're going to do it my way. Go back there.

17 Q. Do you recall being charged by an information?

18 A. By an information? Could you clarify?

19 Q. By an information. In other words, by a charge, a
20 criminal charge called an "information."

21 A. I don't understand.

22 Q. Do you remember having -- do you remember that there
23 was a charge that was brought against you?

24 A. Computer fraud, um, aiding and abetting computer
25 fraud.

1 Q. And the charge was brought against you under a
2 statute, um, 18 United States Code 1030. Do you
3 understand that to be the case?

4 A. Yes.

5 Q. And you went through a plea colloquy with the judge
6 when the judge asked you if you understood what the
7 elements were of that offense, am I correct?

8 A. Yes.

9 Q. Now -- (Pause.) Now, I want to try to --

10 THE COURT: Do you need some help? Because
11 there's nothing up on the monitor yet.

12 MR. MCGINTY: No, we're fine, your Honor.
13 We're passing on that.

14 THE COURT: Oh, all right.

15 Q. Now, I want to talk about the time frame here.

16 You were in Phoenix until 2003, am I right?

17 A. Yes, as I recall.

18 Q. Okay. And that would have been what, between 2000
19 and 2003?

20 A. I believe so.

21 Q. Um, you said that you met Mr. Harris in Phoenix at
22 some point, is that correct?

23 A. That's correct.

24 Q. Now, at some point, um, he had left Phoenix and he
25 went to live in Oregon, do I understand that right?

1 A. To my knowledge, yes.

2 Q. Okay. Now, to your knowledge he went to live in
3 Portland, Oregon, correct?

4 A. It might have been Portland, but I can recall it
5 might have been Redmond.

6 Q. But you understood that he was living in Portland,
7 correct?

8 A. He was living in Oregon, yes.

9 Q. You had gone to live with your parents in San Diego?

10 A. That's correct.

11 Q. And you, during that time, accessed a cable modem
12 and you uncapped that modem to give yourself increased
13 speed. Do I understand that right?

14 A. Yes.

15 Q. Now, when you uncapped that modem, what you were
16 doing -- or you had service at the time, you were paying
17 for internet service, correct?

18 A. That's correct.

19 Q. What you were doing is you were lifting the limit on
20 the service that you were paying for to permit yourself
21 greater speed, am I correct?

22 A. On an separate modem, yes.

23 Q. Oh, on a separate modem. So did you have two
24 modems?

25 A. That's correct.

1 Q. And, um, where was this attached to, your parents'
2 house?

3 A. That's correct.

4 Q. And when the wire came into the house, did you split
5 it out to put two separate modems on it?

6 A. The house already had the split and so I used a
7 different outlet.

8 Q. Okay, so you used a different outlet. And you said
9 that you used the 1.3 program in order to do that. Do I
10 understand that right?

11 A. I believe so. It's been a while.

12 Q. But when you say "I believe so," I'm asking whether
13 you recall having done that or not?

14 A. I believe it was 1.3, yes.

15 Q. Okay. Now, would you use both modems at the same
16 time?

17 A. Um, I would unhook one and then use another.

18 Q. Now, the identifier on that modem, the MAC address
19 on that modem, would have been different from the MAC
20 address on the modem that you were using legitimately,
21 am I right?

22 A. Yes.

23 Q. Now, at the time, when did you say this occurred?

24 A. After I moved back from Phoenix, so I believe
25 somewhere in the late 2003s, maybe 2004s. I'm not quite

1 sure of the exact date.

2 Q. Now, at the time Mr. Harris was in Oregon, right?

3 A. That's correct.

4 Q. The Sigma 1.3 program, at the time, had no capacity
5 of changing a MAC address, isn't that true?

6 A. It had the capacity with Ryan's technology.

7 Q. I'm asking now about the Sigma 1.3 program.

8 A. I think --

9 Q. Is it your testimony that the Sigma 1.3 program had
10 the capability of changing a MAC identifier?

11 A. To my knowledge, yes.

12 Q. Now, you moved in with Mr. Harris, you testified on
13 direct, in 2005, correct?

14 A. Yeah, that's correct.

15 Q. Now, this was after you had completed the
16 incorporation papers?

17 A. That's correct.

18 Q. And the incorporation papers are referred to -- when
19 the government was going through the chats, there was
20 reference to an Exhibit 5 on Page 15, giving the date of
21 that as February 25, 2005. Would that be a fair date
22 based on that exhibit that you saw?

23 A. I believe so.

24 Q. Now, Exhibit 1 is a incorporation document, is it
25 not?

1 MR. MCGINTY: Could we put up Exhibit 1?

2 (On screen.)

3 Q. Now, directing your attention to Exhibit 1. At the
4 bottom right the date on the incorporation paper here is
5 September 5th, 2005, is it not?

6 A. It might be a "4," I can't quite tell from here.

7 Q. So it's September 4 or September 5, 2005, am I
8 right?

9 A. I can't tell from here. I can't see whether that's
10 a "9" or a "4."

11 THE COURT: I'm sorry. I don't know if you
12 heard his answer. I think he's saying he's not sure if
13 that's a "9," meaning September, or a "4," meaning
14 April?

15 THE WITNESS: That's correct.

16 Q. Now, what does it appear to be here?

17 A. It looks like a "9."

18 Q. Now, the date on this corporation document is
19 different from the date on the chat because the date on
20 the chat was February 25th, referring to the date of
21 incorporation, and this incorporation paper refers to
22 September 5 as the date that you signed the
23 incorporation papers. Would that be a fair statement?

24 A. According to this document, yes.

25 Q. Your testimony was that you moved in with Harris

1 after you had completed the incorporation papers. Do
2 you recall saying that?

3 A. I believe so, yes.

4 Q. You had testified on direct that you lived together
5 for between six months and a year. Do you remember
6 saying that?

7 A. Yes, I remember that.

8 Q. But you also said, just a short time ago, that
9 during 2005, Mr. Harris was living in Hong Kong,
10 correct?

11 A. At one point he was, yes.

12 Q. Didn't you say the date on that is 2005?

13 A. On this? Yes.

14 Q. No, the date when you said that Mr. Harris was
15 living in Hong Kong was 2005, right?

16 A. Yes. When he got married, yes.

17 Q. And he got married at the very beginning of 2006 in
18 January, isn't that right?

19 A. That would be correct, yes.

20 Q. So for a time in 2005 up to 2006, Mr. Harris was not
21 living with you, am I right?

22 A. For a short period, yes.

23 Q. A short period. How long is a short period?

24 A. I'm not quite sure exactly how long he was gone.

25 Q. But you were living together, am I right?

1 A. Yes, he was paying rent.

2 THE COURT: Actually, Mr. Phillips, try to
3 keep your voice up. Speak into that microphone. Your
4 ultimate audience is in the back row of the jury box.

5 THE WITNESS: Yes, your Honor.

6 Q. You had rented an apartment, correct?

7 A. That's correct.

8 Q. You had signed a lease for the apartment, right?

9 A. That's correct.

10 Q. Your name was on the utilities for the apartment, am
11 I right?

12 A. That's correct.

13 Q. Your name was on the utilities for the cable service
14 that was provided to that apartment, isn't that right?

15 A. That's correct.

16 Q. And Mr. Harris was contributing -- during the time
17 he was there, contributing to the rent, am I right?

18 A. That's correct.

19 Q. So you recall when he was contributing and when he
20 was there, do you not?

21 A. I recall he was there and was contributing, yes.

22 Q. Okay. So during what period in 2005 was he living
23 with you in that apartment?

24 A. I can't recall the exact time.

25 Q. You moderated some TCNISO forums on the website, did

1 you not?

2 A. Yes.

3 Q. You were advised by Mr. Harris to delete anything
4 from the forums that concerned MACs, am I right?

5 A. That is correct.

6 Q. You were instructed by him to delete spam postings
7 and anything considered illegal, correct?

8 A. That's correct.

9 Q. You were also told to ignore any e-mail
10 communications from customers relating to MAC addresses,
11 were you not? Were you not told that?

12 A. Yes, that I can recall.

13 Q. And your main task there was to take and to put
14 together and ship out on-line orders, am I right?

15 A. Yes.

16 Q. You testified that while you were working in this
17 fashion, you were almost every day on the surfboard
18 internet relay chat room, am I right?

19 A. To the best of my memory, yeah, as much as I could
20 be.

21 Q. And you were asked, when you logged into that, and
22 you said that there was a link between a TCN website and
23 a surfboard IRC?

24 A. There was a -- it told you where to go and that was
25 the link. They told you to go to the surfboard IRC for

1 information.

2 Q. And you said that that link was there at sometime.

3 Do you remember saying that?

4 A. I don't believe it was there the whole time, I
5 believe it was there for just a period of time, but I
6 can't recall it.

7 Q. What was the time that that was there?

8 A. I can't recall.

9 Q. Within five months, was it there?

10 A. I can't recall the exact date.

11 Q. Within two years, was it there?

12 A. (Pause.) I can't recall the exact date.

13 Q. You pointed to, in your testimony, to a chat
14 conversation?

15 A. Which one?

16 Q. Between yourself and Mr. Harris.

17 A. That's correct.

18 THE COURT: Is this Exhibit 5?

19 (Pause.)

20 Q. Do you recall testifying about a chat relating to
21 this offer to go to a hacker conference in Germany. Do
22 you remember that?

23 A. Yes.

24 THE COURT: And, excuse me, just one moment.
25 What page is that, please?

1 MR. MCGINTY: This is 512.

2 THE COURT: Thank you.

3 Q. And you testified about an opportunity that was
4 given, um, to go to Germany to this hacker conference?

5 A. That's correct.

6 Q. And there was going to be an issue about how much
7 licenses were going to be charged and whether or not
8 there was going to be -- whether you were going to teach
9 them how to get uncapped service, correct?

10 A. Um, could you repeat the question? I'm sorry.

11 Q. There was conversation that you referred to in your
12 direct testimony describing how, um, this opportunity
13 was offered and it involved you providing information
14 about licensing and about whether service can be
15 provided for free using TCN products, fair?

16 A. I stated that someone was looking for the
17 information, that I can recall, and that Ryan offered an
18 unlimited license for a specific amount, yes.

19 Q. Now, what you didn't point to was the conversation
20 that preceded this, and let's go back here to the top
21 here.

22 You indicated that "ME," "you have been invited to
23 international HK modem hacking conference. Full paid
24 expenses." What does Mr. Harris say in response?

25 A. "Laugh Out Loud."

1 Q. And what do you say?

2 A. "This is funny."

3 Q. He says "Come again?" What do you say?

4 A. "This guy is offering the world for me and you,
5 money, women, plane tickets, hotel, an international
6 modern hacker conference in Bucharest, Romania."

7 Q. And Mr. Harris responds: "Dude, there is no such
8 thing."

9 A. "They want to offer royalties to us if we come or
10 know. Prove to me this is true." And then the next
11 thing -- "someone on the IRC chat saying what they're
12 offering," I believe. It says "poseur, okay. Poseur."

13 THE COURT: I'm sorry. You've got to read it
14 a little more slowly and clearly.

15 A. I believe it says "Poseur, okay. Poseur, band.
16 Poseur, I buy a ticket. Poseur, ticket. USA." And
17 that was something from the IRC chat room.

18 Q. And what's Harris' response?

19 A. "Laugh Out Loud, do it, and get off in Germany. Ha
20 ha."

21 Q. Now, this is part of the conversation that you had
22 pointed to earlier relating to this opportunity in
23 Germany to go to the hacker conference, is that right?

24 A. Yes.

25 Q. (Pause.) You testified that when Mr. Harris' wife

1 moved in, when Mr. Harris came back from Hong Kong and
2 his wife had moved in, you felt squeezed out, is that
3 correct?

4 A. Correct.

5 Q. You felt not needed?

6 A. Correct.

7 Q. Now, you didn't tell Mr. Harris that you were
8 leaving, did you?

9 A. That's correct.

10 Q. You emptied the account of money, true?

11 A. I went to the bank and withdrew the money, yes.

12 Q. Now, you weren't being paid, were you?

13 A. That's correct.

14 Q. But you had control over the lease to give notice to
15 anyone?

16 A. That's correct.

17 Q. And you didn't tell Mr. Harris about that, did you?

18 A. Nope.

19 Q. You were angry with him, weren't you?

20 A. That's correct, because of the conversation I
21 overheard.

22 Q. Now, you had talked in your testimony about a
23 program called "Coaxial Thief"?

24 A. Yes.

25 Q. And you said that it could be used to get MACs,

1 correct?

2 A. To my knowledge, yes.

3 Q. Now, um, are you aware that this program was only
4 offered to Harris as a supplement to software in August
5 of 2005. Are you aware of that?

6 A. I'm not quite sure of the date.

7 Q. Were you aware that it didn't exist in 2004 and
8 2003. Are you aware of that?

9 A. No, not to my knowledge that I can recall.

10 Q. Were you aware that it was designed by MooreR and
11 not by Chris Watts?

12 A. I believe it was designed by Chris Watts and Ryan
13 Harris.

14 Q. Would it surprise you if it was prepared and drafted
15 by MooreR?

16 A. If there is evidence or proof, then it would be --
17 well, I would believe so.

18 Q. When you got MAC addresses --

19 A. Yes.

20 Q. -- in the period before 2005, one of the ways you
21 got them was by "war driving"?

22 A. "War driving"?

23 Q. Yeah.

24 A. I don't recall what that is.

25 Q. Oh, you don't recall what it is?

1 A. No.

2 Q. Do you understand that 'war driving' is driving
3 around looking for vulnerable WIFI systems?

4 A. I didn't know that's what it was called.

5 Q. Oh, you didn't know that's what it's called. Had
6 you ever done that?

7 A. (Silence.)

8 Q. Have you ever done that?

9 A. At one point, I believe so. At one point, yes.

10 Q. "I believe so." Now, does "I believe so" mean "I
11 did"?

12 A. I can't recall any specific instance. I have gone
13 around before and received other people's used internet,
14 like at Starbucks, and gone around and parked in
15 people's spots and by their houses on the street and did
16 get free internet access.

17 Q. And when you drive around to people's streets to sit
18 outside to get internet access, you also get the
19 capability of seeing their MAC address, isn't that true?

20 A. It could be possible.

21 Q. It could be possible. And it's a source of MACs,
22 isn't it?

23 A. I'm sorry. What did you say?

24 Q. And it's a source, it's a way to get MAC addresses,
25 isn't it?

1 A. It's possible.

2 Q. Okay. Now, do you recall -- and you say that you've
3 actually driven to people's addresses and you've sat
4 outside. How many times have you done that?

5 A. Maybe once, waiting for a garage sale, that I can
6 recall.

7 Q. Okay. And when you did it, you got a MAC address,
8 right?

9 A. Yeah.

10 Q. You testified a few moments ago that you knew it was
11 possible to do that, right?

12 A. It's possible, yes.

13 Q. Okay. So it's a source of a MAC address which could
14 help you get internet service or increase your internet
15 service, am I right?

16 A. That is a possibility.

17 Q. Okay. So would it be fair to say that if a person
18 did that, they would remember doing that? Would that be
19 fair to say?

20 MR. BOOKBINDER: Objection, your Honor.

21 THE COURT: Sustained. He can't testify about
22 what other people might remember.

23 Q. Do you recall whether you, more than once, tried to
24 find a vulnerable WIFI and take the MAC address?

25 A. I've never taken the MAC off anyone's WIFI who was

1 vulnerable that I can recall.

2 Q. I'm sorry?

3 A. That I can recall.

4 Q. Okay. You say that when you lived with Mr. Harris,
5 you had one legitimate computer and you said one of them
6 was uncapped, correct?

7 A. I had one legitimate -- a cable modem on one
8 uncapped and a cable modem on the other computer.

9 Q. And the one that was uncapped --

10 A. Yes.

11 Q. Well, let me ask you this.

12 Um, were these linked into the same coaxial cable?

13 A. Yes, to my knowledge.

14 Q. So there would be a coaxial cable coming in linking
15 to a modem, right?

16 A. That's correct.

17 Q. Would the second modem be then connected to that
18 same coaxial cable?

19 A. If you use a splitter, yes.

20 Q. Oh, you use a splitter to break it out, right?

21 A. That's correct.

22 Q. Now, if you use a splitter to break it out, um, that
23 would mean that the computers would not be networked,
24 would that be fair to say?

25 A. No.

1 Q. So if you split them out, if you take the coaxial
2 cable and you split it out, you have two modems?

3 A. That's correct.

4 Q. And you have computers that were linked to those
5 modems?

6 A. They're linked by a router, which is a networking
7 device that allows you to connect to the network.

8 Q. The router would be on the other side of one of the
9 modems, would it not?

10 A. That's correct.

11 Q. Not the second modem, right?

12 A. Either/or, whichever one got plugged in at the
13 house.

14 Q. So one of the computers would have the capability of
15 being networked, is that right?

16 A. All of them.

17 Q. All of them?

18 A. All three were connected together.

19 Q. They're all connected together through a common
20 modem, right?

21 A. Through the common router.

22 Q. Through the common router?

23 A. That's correct, which either modem could be
24 connected to at any time.

25 Q. Now, you said that you were able to get access to

1 Mr. Harris's, um -- to Mr. Harris's files on his
2 computer through your computer?

3 A. That's correct, we were networked.

4 Q. Because of your network. And you could see what was
5 on his computer?

6 A. That's correct.

7 Q. You said that before you left the apartment, you
8 accessed his chats and you saved "all that I could and
9 took it with me." Do you remember saying that?

10 A. That's correct, off both the computer in the living
11 room and all that was on his computer that I could find.

12 Q. All that was on his computer that you could find?

13 A. That's correct.

14 Q. Did you save any chats of yours?

15 A. Yes, I turned them in.

16 Q. You turned them in?

17 A. That's correct.

18 Q. So if I were to get -- well, strike that.

19 You put these onto a CD, am I right?

20 A. That's correct.

21 Q. And on the CD, did you put the chats that you were
22 party to other than the chats that were with Mr. Harris?

23 A. I can't recall, but I'm pretty sure I did.

24 Q. Did you also -- so you had the capability of
25 recording all that he had on his computer, am I right?

1 A. As much as I could at the time, I did so.

2 Q. You didn't cherry pick things, right?

3 A. That's correct.

4 Q. And you were also trying to record what chats you
5 had with other persons not him, am I right?

6 A. I just grabbed as much as I could.

7 Q. But did you try to record the chats of yours that
8 did not involve him?

9 A. I can't recall.

10 Q. When was the last time you looked at the chats that
11 you had recorded?

12 A. Um, after I turned it over to the FBI.

13 Q. Had you looked at it before then?

14 A. Not to my recollection.

15 Q. Well, when you say not to your recollection --

16 A. Other than when I took it.

17 Q. You took and recorded --

18 A. That's correct.

19 Q. -- as much as you could from that computer, am I
20 right?

21 A. That's correct. And after that, I didn't look at
22 it.

23 Q. Okay. And you put it on a CD. Was it one CD or
24 more than one CD?

25 A. It was multiple CDs.

1 Q. Okay. Where did you put them?

2 A. Um, I put them in a CD carrying case and kept them.

3 Q. And where did you keep them?

4 A. I kept them with me at all times like in my house or
5 -- basically in my house in a box.

6 Q. In a box. So you say you kept them with you at all
7 times?

8 A. Yeah, that's what I meant, like at my house.

9 Q. So they're in a box?

10 A. Yeah.

11 Q. Did you ever access them?

12 A. Um, not until the FBI contacted me.

13 Q. Okay. So when you, um -- when you -- how many CDs
14 did you have?

15 A. Probably, I can't recall, maybe six to eight.

16 (Pause.) I don't remember.

17 Q. So -- I'm sorry. I missed the answer. How many CDs
18 did you have?

19 A. I believe 6 to 8. I can't recall exactly. I
20 might -- it's been a long time.

21 Q. So 6 to 8 CDs. Did you access them at any time
22 during the three and a half years you had them?

23 A. Not until I delivered them to the FBI.

24 Q. Did you alter them at any time while you had them?

25 A. No.

1 Q. Did you delete chats between Craig Phillips, you,
2 and other persons?

3 A. No.

4 Q. How is it that when we look at the chats,
5 Mr. Phillips, we can't find any chats of you with anyone
6 else other than Mr. Harris, how can that be?

7 A. Because that's the information that I took that I
8 can't recall. I mean, I took as much as I could off his
9 computer.

10 Q. So as much as you could did not involve any chats
11 that you were party to other than the chats with
12 Mr. Harris. Do I understand that right?

13 A. Well, if it was from his computer, it would be his,
14 that's correct.

15 Q. So do you recall whether you took your chats?

16 A. I can't recall.

17 Q. Okay. Now, listen. Your testimony is that you were
18 not leaving TCN because you hated him and because you
19 were sick of the way you were being treated and because
20 you were going to take the money and walk away. Your
21 testimony now is you left because you were afraid of a
22 white car outside and being arrested by the FBI. That's
23 your testimony, right?

24 A. No. No, I was still afraid of Mr. Harris.

25 Q. So you went and you recorded things off the

1 computer, correct?

2 A. Correct.

3 Q. As much as you could get?

4 A. Off of his computer and the other computer, not my
5 own.

6 Q. Not your own. So is your computer out of the
7 network?

8 A. No, it was part of the network.

9 Q. It was part of the network. So you tried to get off
10 there as much as you could on the network, am I right?

11 A. That's correct.

12 Q. Did --

13 THE COURT: Excuse me. I'm not sure he
14 finished the answer.

15 And you should say what's necessary to answer the
16 question fully. Don't go beyond it.

17 But let him answer, please.

18 A. Repeat the question, please?

19 THE COURT: All right. He'll ask the next
20 question.

21 Q. Did you record your chats other than with
22 Mr. Harris?

23 A. My personal chats off of my computer? No.

24 Q. No. On your chats --

25 THE COURT: Mr. McGinty, questions, not

1 comments. Just ask questions.

2 Q. In those chats there would have been conversations
3 between you and DShocker, am I right?

4 A. There might have been, I presume.

5 Q. The crime that you pled guilty to was computer
6 intrusion --

7 A. Aiding and abetting computer abuse.

8 Q. -- with, among other people, DShocker, am I right?

9 A. I don't know of his charges.

10 Q. Were you aiding and abetting someone in the charge
11 that you pled guilty to?

12 A. Yes.

13 Q. The named person in the indictment that you were
14 aiding and abetting was DShocker, correct?

15 A. Yes.

16 Q. You had been in communication with DShocker in the
17 IRC, correct?

18 A. Yes.

19 Q. You testified that you were chatting with him, am I
20 right?

21 A. Yes.

22 Q. If you had recorded your chats, on those chats would
23 be communications with DShocker, am I right?

24 A. Possibly, yes.

25 Q. Mr. Harris told you to have nothing to do with

1 DShocker, didn't he?

2 A. That's correct.

3 Q. The word he used was "idiot," "He's an idiot," am I
4 right?

5 A. Yes.

6 Q. He didn't want anything to do with him, am I right?

7 A. Yes.

8 Q. The person you pled guilty to aiding and abetting in
9 the charge that you pled guilty to in federal court,
10 correct?

11 A. Yes.

12 Q. And we don't have your chats between you and him,
13 correct, because you didn't copy them. Do I understand
14 that right?

15 A. That's correct.

16 Q. And we don't have any other chats involving you and
17 other persons, do we?

18 A. Nope.

19 Q. (Pause.) You testified about surfboarding?

20 A. That's correct.

21 Q. This was the, um -- this chat that you claim was
22 linked to the TCN website at some time, right?

23 A. Yes.

24 Q. You were on the surfboard chat every day, you
25 testified?

1 A. Yes, as much as I could be.

2 Q. As much as you could be. So on your computer when
3 you recorded everything that you could record, there
4 would have been logs of chats involving you on the
5 surfboard chat room, right?

6 A. That's correct.

7 Q. But you didn't record those, did you?

8 A. Nope.

9 Q. Now, you are now telling us that you recall that you
10 did not record your chats with persons other than
11 Mr. Harris. You said that straight out to the jury. Am
12 I right?

13 A. I did not record and I did not copy them.

14 Q. When I first asked you that question, you said, "I
15 don't recall."

16 A. I recall.

17 Q. You recall now. When I asked you that a few moments
18 ago, you said that you did not recall, remember?

19 A. I was quite -- I didn't understand the question.

20 Q. So when you said, in answer to that question, "I
21 don't recall," you were not lying to this jury, do I
22 understand that right?

23 MR. BOOKBINDER: Objection.

24 THE COURT: Yeah, it's sustained as to that
25 form. It's not clear what it refers to.

1 Q. When you said, "I don't recall if I had copied chats
2 other than with Mr. Harris," you were making a false
3 statement, weren't you?

4 A. No.

5 Q. Isn't it true that you did recall?

6 A. That I didn't copy them?

7 Q. Yes.

8 A. That's correct. I took a minute to remember and I
9 remembered.

10 Q. Okay. But when you said, "I didn't recall," is it
11 your testimony that you were telling the truth --

12 MR. BOOKBINDER: Objection, your Honor.

13 Q. -- that you didn't recall?

14 MR. BOOKBINDER: We've been through this.

15 THE COURT: All right. This will be the last
16 time. Go ahead. You may answer.

17 A. The question again? I'm confused a little.

18 Q. When I asked you whether you recorded the chats --

19 THE COURT: Well, when you say "recorded," you
20 mean copied?

21 MR. MCGINTY: Copied. I'm sorry.

22 Q. When I asked you whether you copied the chats --

23 A. Off my own computer.

24 Q. Off your computer, that did not involve Mr. Harris,
25 and you said, "I don't recall."

1 A. That's correct, I didn't recall it at that moment,
2 and when we continued on with the conversation, I then
3 recalled. Memories don't come instantly.

4 Q. For some of us, that's right.

5 MR. BOOKBINDER: Objection.

6 THE COURT: Mr. McGinty. Mr. McGinty, ask
7 questions. No comments. Of course, that's the same for
8 the government.

9 Q. Now, you were showed a copy of your plea agreement.
10 Do you recall that?

11 A. Yes.

12 Q. And in the plea agreement it describes what things
13 happened to you in the context of sentencing in your
14 case?

15 A. That's correct.

16 Q. And one of the things that you commit to, in this
17 plea agreement, is to cooperate with the government, am
18 I right?

19 A. That's correct.

20 Q. Now, you understand that the decision about whether
21 you cooperate or not is a decision to be made by the
22 government. You understand that, right?

23 A. By the judge.

24 Q. By the judge. Do you understand that the government
25 makes the decision whether you are provided substantial

1 assistance, do you understand that that is in the
2 discretion of the United States Attorney, not the judge?

3 A. Yes, but the judge makes the final decision.

4 Q. The judge makes the decision about what the sentence
5 should be, but on the question of whether your testimony
6 constituted substantial assistance, it's the government
7 that makes that decision, you understand that, right?

8 A. Yes.

9 Q. And you understand that if, in the government's
10 view, you --

11 THE COURT: Actually, what exhibit is the plea
12 agreement?

13 MR. MCGINTY: This is Exhibit 26.

14 THE COURT: Thank you.

15 Q. If the United States Attorney determines that you
16 have not abided by your agreements in that plea
17 agreement, the United States Attorney can terminate that
18 agreement, am I right?

19 A. That's correct.

20 Q. And if it terminates that agreement, you face
21 whatever consequences you would face without the benefit
22 of the plea agreement's protections, isn't that right?

23 A. That's correct. I think about that every day.

24 (Pause.)

25 MR. MCGINTY: I have no further questions of

1 this witness.

2 THE COURT: Okay.

3 (Pause.)

4 MR. BOOKBINDER: No questions, your Honor.

5 THE COURT: Okay.

6 Mr. Phillips, your testimony is complete. You're
7 excused.

8 THE WITNESS: Thank you.

9 THE COURT: The United States may call the
10 next witness.

11 MR. BOOKBINDER: The government calls
12 Christopher Kohler.

13 (Witness takes stand.)

14 (CHRISTOPHER KOHLER, sworn.)

15

16 *****

17 CHRISTOPHER KOHLER

18 *****

19

20 DIRECT EXAMINATION BY MR. BOOKBINDER:

21 Q. Good morning. Would you state your name and spell
22 your last name for the record, please.

23 A. Christopher Kohler, K-O-H-L-E-R.

24 Q. Mr. Kohler, where do you work?

25 A. Motorola.

1 Q. What do you do for Motorola?

2 A. I'm a Senior Director of Engineering.

3 Q. What's your -- very briefly could you say what your
4 educational background is?

5 A. I have a bachelor of science in electrical
6 engineering from San Diego State University and a
7 master's of science in electrical engineering from San
8 Diego State University.

9 Q. How long have you been working for Motorola?

10 A. Since 2000, so roughly 12 years.

11 Q. What, um -- for anyone who doesn't know, how would
12 you describe what Motorola does?

13 A. Motorola designs and produces products that are used
14 in the home as well as products that are used in the
15 field, such as cell phones, television equipment, cable
16 set-top boxes and broadband equipment.

17 Q. When you say "broadband equipment," what is "broad
18 band"?

19 A. "Broad band" is, um, for example, a cable modem or a
20 DSL modem for high speed access to the internet.

21 Q. And what are your job responsibilities at Motorola?

22 A. I'm responsible for the design and development of
23 all broadband equipment that goes inside a consumer's
24 home. So that would be cable modems and DSL modems.

25 Q. So as part of your job, you are familiar with how

1 people use Motorola modems to get internet access?

2 A. Yes.

3 Q. Can you describe for the jury what role modems play
4 in giving somebody internet access?

5 A. Modems are a piece of equipment that goes inside a
6 customer's home, it connects to the customer's computer,
7 and then it also connects to the internet provider's
8 network.

9 Q. Before there were cable modems, were there other
10 kinds of modems?

11 A. There were.

12 Q. Dial-up modems were those earlier kinds?

13 A. Yes.

14 Q. How did a dial-up modem get internet connection?

15 A. A dial-up modem got internet connection in a similar
16 way, it connected to the customer's computer in their
17 home as well as to a telephone provider's network.

18 Q. Were there some performance problems with dial-up
19 modems?

20 A. Yes.

21 Q. And what were those?

22 A. Dial-up modems were typically very slow in how fast
23 they could access the content on the internet.

24 Q. When you say "slow" and when you talk about concepts
25 like speed in the context of internet access, what do

1 you mean by that?

2 A. Um, broadband access is measured in units of how
3 fast packets or types of information can be transferred
4 from the computer to the internet or from the internet
5 back to the computer. The information is measured in
6 terms of bits per second or what's called bandwidth.

7 Q. And what's the impact of slow access, for example,
8 on a person sitting at their computer trying to connect
9 to the internet?

10 A. Um, they have to wait maybe a long time for the
11 information they're trying to access on the internet to
12 be downloaded to their computer or information they're
13 trying to send to the internet, it takes a long time to
14 send.

15 Q. So the concept of speed and bandwidth, are those
16 essentially the same or related?

17 A. They are very much related.

18 Q. What's "bandwidth"?

19 A. "Bandwidth" is a term that is used in the industry
20 to describe how fast, um, content from the user is sent
21 to the internet or how fast content is received from the
22 internet and received at the user's computer.

23 Q. After the dial-up modems, were cable modems one of
24 the next generation of modems?

25 A. They were.

1 Q. And I'd like you to take a look, I'm going to hand
2 you two pieces of equipment that are labeled for
3 identification. They both would be considered, I guess,
4 Exhibit 16.

5 Are you familiar with what those are?

6 A. I am.

7 Q. And, generally speaking, what are they?

8 A. They are cable modems.

9 Q. What kind?

10 A. Um, they are cable modems that were manufactured by
11 Motorola and the Model Number is SB-4200.

12 Q. What does "SB" stand for?

13 A. "Sb" is an acronym that Motorola used that stands
14 for "surfboard," it's a trademark name that we use for
15 all of our cable modems.

16 MR. BOOKBINDER: Your Honor, the government
17 offers both of those as Exhibit 16.

18 THE COURT: Well, why don't we make them 16A
19 and B, okay? And they are admitted.

20 MR. BOOKBINDER: Your Honor, may I pass them
21 to the jury?

22 THE COURT: You can give them to Mr. Hohler
23 and he'll do it for you.

24 MR. BOOKBINDER: Thank you.

25 (Passes out exhibit to the jury.)

1 (Exhibits 16A and B, marked.)

2 MR. BOOKBINDER: Your Honor, may I continue?

3 THE COURT: No, if you want them to look at
4 that. They have to give their undivided attention to
5 the witness, so if you want them to look at the modem,
6 they'll take a moment or two and they'll look at the
7 modem.

8 MR. BOOKBINDER: That's fine.

9 (Pause.)

10 THE COURT: Okay. You may resume.

11 MR. BOOKBINDER: Thank you, your Honor.

12 Q. With these cable modems, um, how do the speeds of
13 the cable modems compare, by order of magnitude, to --
14 with one of the old dial-up modems, is it twice as fast,
15 10 times as fast, 100 times as fast? What's the
16 ballpark?

17 A. Um, these generation of cable modems, the SB-4200,
18 were approximately about 30,000 times faster for
19 transferring speeds from the internet to the computer
20 and then approximately 10,000 times faster than the
21 dial-up modem for transferring information from the
22 computer up to the internet.

23 Q. If you want to get a -- if you want to get cable
24 access in your house and -- cable internet access, you
25 need a modem, is that correct?

1 A. Yes.

2 Q. How do you get one?

3 A. You have two options as a user, um, you can either
4 call up your cable company that's in your neighborhood
5 and you would request cable modem access or internet
6 access. They would come out with an installer and bring
7 their own cable modem and put that into your home. The
8 second option is you, as a user, can go to a local
9 retail store and buy your own cable modem, bring it
10 home, and then you would call up the internet provider
11 or cable company in your neighborhood and give them
12 information over the phone and then you would then
13 connect it up yourself and get internet access that way.

14 Q. Who are the major manufacturers of cable modems?

15 A. Um, Motorola being the Number 1 and we have
16 approximately 75 percent of all market share of all
17 cable modems in the world. The other manufacturers were
18 companies such as Cisco, um, Ariss Communications, um,
19 and those were typically the Number 2 and 3 market share
20 providers.

21 Q. Ariss, how do you spell it?

22 A. Ariss is A-R-I-S-S, Communications.

23 Q. Okay. Are you familiar with a MAC address, with
24 that concept?

25 A. Yes.

1 Q. What does that stand for and what is it?

2 A. A MAC address stands for "Media Access Control," and
3 it is a unique number that is assigned to every single
4 cable modem that is manufactured in the world by any
5 manufacturer.

6 Q. It's sort of like a serial number?

7 A. It's similar to a serial number, but a serial number
8 is unique to an individual manufacturer, um, where the
9 MAC address is not relevant to a manufacturer. There's
10 only one MAC address for every cable modem in the
11 world. It's very unique.

12 Q. Where in the manufacture/delivery/installation
13 process does the MAC address get assigned?

14 A. The MAC address is assigned when the modem is being
15 manufactured at the factory.

16 Q. And what form does it take, are we talking about a
17 printed number on the label, is it electronic inside the
18 modem?

19 A. It is both, it is an electronic number that is
20 programmed into the cable modem's memory when the modem
21 is manufactured, it is also printed on a label that gets
22 attached to the outside of the cable modem, and it's
23 also printed on another label that gets attached to the
24 box that the cable modem is put into when it is shipped
25 to its final destination.

1 Q. Is a MAC address something that's designed to, um,
2 be changeable by users?

3 A. It is not.

4 Q. Does Motorola take any steps to prevent people from
5 changing the MAC address?

6 A. We do.

7 Q. Generally speaking, what are those?

8 A. We do several things to prevent the MAC address from
9 ever being changed outside of the factory. The first
10 precaution that we put is in the software that's
11 programmed into the cable modem. We have protections in
12 the software to prevent that MAC address from ever being
13 changed. We also have hardware protections that are
14 also inside the cable modem to prevent somebody from
15 physically trying to change the MAC address and the
16 cable number.

17 Q. Why do you take those steps to prevent people from
18 changing MAC addresses?

19 A. A MAC address is used by the cable provider and it
20 is used by the cable provider to ensure that that one
21 cable modem has been authorized for service on their
22 cable plan.

23 MR. BOOKBINDER: At this point, your Honor,
24 I'd like to use one of the chalks with the witness and
25 set it up and ask him to come down?

1 THE COURT: Yes, you may.

2 (Pause.)

3 THE COURT: Ladies and gentlemen, you heard
4 Mr. Bookbinder refer to a chalk. A chalk is what
5 lawyers and judges call, in this case, a diagram. It's
6 not being admitted into evidence, it won't go back in
7 the jury room with you, but it's being used to
8 illustrate the evidence to assist you in understanding
9 it.

10 So those chalks were marked yesterday as C1 and
11 C2, I believe?

12 MR. BOOKBINDER: Correct.

13 THE COURT: It looks like you have C2 up on
14 the board.

15 MR. BOOKBINDER: Thank you, your Honor.

16 Q. Could you come down, Mr. Kohler, and if you could
17 stand sort of near this. And what I'll ask you to do
18 is, um, using that chalk as sort of a guide, can you
19 explain, um, how someone connects their computer to the
20 internet, what happens? And I may interrupt you, as you
21 go through, and ask you specific questions.

22 A. Okay.

23 So this picture in the middle here that's labeled
24 "modem" is the cable modem. The cable modem is inside
25 the user's home and one cable goes from the cable modem

1 to the user's computer. The other cable that comes out
2 of the cable modem goes from the modem to the broadband
3 provider's network in the neighborhood or the street.
4 So this is typically a coaxial cable, um, connection
5 from the modem to the neighborhood or somewhere in the
6 street.

7 Then from the street, um, the coaxial cable
8 eventually makes its way to the cable operator's offices
9 and inside the cable operator's offices is another piece
10 of equipment called a Cable Modem Termination System,
11 and we use the acronym "CMTS," and the Cable Modem
12 Termination System will then connect to the internet,
13 which is represented by the bottom circle down there.

14 Q. When someone plugs their modem in, turns it on, and
15 turns on the computer, um, what happens that -- what
16 happens when they try to get internet access, how does
17 that work?

18 A. So the first thing that happens when the modem turns
19 on is it will begin searching on the coaxial cable for
20 an internet channel that is coming from the CMTS.

21 Remember, there's many different channels that are on
22 this coaxial cable, such as television channels, but
23 there's also an internet channel. So the cable modem
24 will first monitor the signals on this coaxial cable and
25 look for an internet channel. When it finds the

1 internet channel, it will then transmit information from
2 the modem to the CMTS and the first piece of information
3 it transmits is its MAC address. The MAC address will
4 be sent from the modem to the CMTS. The CMTS will then
5 go into the cable operator's database, which is
6 represented by the circle on the top here, and verify
7 that that MAC address has been authorized for use on
8 this cable operator's network.

9 Q. Let me stop you right there. When you say
10 "authorized for use," does that mean that it belongs to
11 someone who's a paying customer?

12 A. Yes.

13 Q. Okay. So if it verifies that that MAC address is of
14 a modem that's listed for a paying customer, then what
15 happens?

16 A. Then the CMTS will send back a message to the cable
17 modem that tells it that it is now authorized for use to
18 access the internet on this cable modem's network. It
19 will also be sent, some information in a configuration
20 file, that will tell the cable modem what type of
21 service this cable modem has been authorized for use.

22 Q. And when you say "what type of service," when you're
23 talking about information in a configuration file, does
24 that have to do with what speed of service it gets?

25 A. Yes, it will tell the cable modem what type of speed

1 it has authorized for use on this cable network.

2 Q. Now, you talked earlier about this sort of capacity
3 of these cable modems to get much faster speeds than old
4 dial-up modems, but there is variation in the kinds of
5 speed that people get based on the plan they have with
6 their cable company, is that correct?

7 A. That is correct.

8 Q. And that information, what you're talking about, is
9 in the configuration file?

10 A. That is correct.

11 Q. And what happens -- going back a step, let's assume
12 someone's cable modem sends its MAC address to the cable
13 company, it checks in the database and doesn't see that
14 address, this person is not a registered customer of the
15 cable company, a registered subscriber, then what
16 happens?

17 A. Then the Cable Modem Termination System will send
18 back a message that basically says that this cable modem
19 is not authorized for service and then it will decline
20 any further access to the internet.

21 Q. Now, underneath the house on that chart there is
22 something that says "Node 1" with a couple of houses on
23 it and then below that something that says "Node 2."

24 Can you explain what a "node" is?

25 A. A "node" is a collection of houses in the

1 neighborhood, um, and remember that all these houses
2 will have cable modems, so each house will have a
3 coaxial cable coming from each house, it goes into a
4 location in the street or in the neighborhood where it
5 gets combined into one coaxial cable, and then it
6 eventually will make its way back to the CMTS.

7 Q. So essentially a "node" is some portion of a
8 neighborhood or a collection of neighborhoods?

9 A. That's correct.

10 Q. At this point I think you can go back and sit down
11 on the witness stand.

12 MR. BOOKBINDER: Your Honor, I'll use another
13 chalk later.

14 THE COURT: Okay.

15 (Seated back at witness stand.)

16 Q. Are you familiar with, um, ways in which users can
17 change a modem's MAC address in an effort to steal
18 internet service?

19 A. I am.

20 Q. Is this something you've investigated as part of
21 your job?

22 A. I have.

23 Q. And what have you done to investigate this kind of
24 activity?

25 A. I have looked at various methods that have been

1 published on the internet which describe the steps on
2 how a user could modify a cable modem and modify the
3 configuration file as well as modify the MAC address.

4 Q. In addition to looking at things that are out there
5 published on the internet, um, have you done other
6 things to try to obtain and investigate these kinds of
7 products?

8 A. I have.

9 Q. Can you describe those?

10 A. I have also purchased, um, what I would call is a
11 "kit," um, an instruction set as well as pieces of
12 software and hardware, um, as well as I've purchased
13 modified cable modems that have already had their MAC
14 addresses changed. Um, I purchased them for
15 investigation.

16 Q. And what about have you discussed this problem with
17 Motorola's customers?

18 A. Yes.

19 Q. And what kinds of customers are those?

20 A. Um, our customers are cable providers, so cable
21 companies such as Comcast and Charter, um, Time Warner.

22 Q. Why have you gone through all this effort to do this
23 investigation into this cable modem hacking?

24 A. Um, two reasons. The first one is our customers,
25 the cable operators, have come to Motorola and asked us

1 to --

2 MR. MCGINTY: Objection.

3 (Pause.)

4 THE COURT: I'll see counsel at sidebar.

5

6 AT THE SIDEBAR

7 THE COURT: I think this may be getting into
8 an area that was originally disputed and I thought was
9 resolved.

10 But what's the basis of the objection?

11 MR. MCGINTY: It's hearsay.

12 THE COURT: Yeah, because wasn't there --
13 wasn't I told originally he was going to -- the record
14 should reflect that Mr. Harris is here, which is
15 permissible, but it's not always customary. But it's
16 okay.

17 I have to go back in the file, but I thought there
18 was originally an objection to Mr. Kohler testifying
19 about complaints that were received and that that was
20 resolved.

21 Am I misremembering that?

22 MR. BOOKBINDER: Your Honor, if we could
23 just --

24 (Pause.)

25 MR. BOOKBINDER: That's fine, your Honor. We

1 think that, um, part of Mr. McGinty's cross-examination
2 may open the door to this, but for now --

3 THE COURT: All right. And there may be a way
4 to do it without having him relate what the cable
5 operators say to him.

6 MR. BOOKBINDER: Yes, that's right, your
7 Honor.

8 THE COURT: Okay.

9

10 (In open court.)

11 THE COURT: Here.

12 MR. BOOKBINDER: I apologize, your Honor.
13 We're trying to work out something.

14 (Pause.)

15 THE COURT: All right. I think Mr. Bookbinder
16 is going to put a different question.

17 MR. BOOKBINDER: Yes.

18 Q. All right. So we're talking about people -- your
19 investigation of people changing MAC addresses to steal
20 service and, um, in those situations, um, what is it
21 that someone is changing their MAC address to?

22 A. They will be changing their MAC address to another
23 cable modem's MAC address.

24 Q. And what category of a cable modem's MAC address are
25 they changing it to?

1 A. It will be a cable modem that has been authorized
2 for use.

3 Q. So the MAC address of a legitimate subscriber to
4 that -- to a legitimate customer of that cable company?

5 A. Correct.

6 Q. Why? What's the benefit of changing your MAC
7 address in that way?

8 A. Um, when you change your MAC address to another
9 cable modem's MAC address that's been authorized for use
10 on that cable plan, then that cable modem now could get
11 access to the internet without having to pay for that
12 service.

13 Q. Is this referred to as "MAC cloning"?

14 A. Yes.

15 Q. Is there any reason, in your experience, why someone
16 would change their MAC address in this way other than to
17 steal service?

18 A. No other reason.

19 Q. Are you familiar with the term "sniffer" as it
20 applies to MAC addresses?

21 A. Yes.

22 Q. What's a "sniffer"?

23 A. A "sniffer" is a piece of equipment that is
24 connected to the cable modem or the cable plant that the
25 cable modem is connected to and a sniffer is used to

1 monitor the messages that are being sent from cable
2 modems to the CMTS. And sniffers are typically used for
3 diagnostic information, but they can also capture MAC
4 addresses as well.

5 Q. When you say it's a "piece of equipment," um, is
6 that, you know, a box of some kind or can it also just
7 be a software program that someone could have on their
8 computer?

9 A. It is always a piece of equipment that has to
10 physically connect to the cable plant, but it can be a
11 modified cable modem with a different piece of software
12 in there or it can be a large piece of test equipment as
13 well.

14 Q. Okay. So if someone, um, connects a sniffer to a
15 cable network -- Oh, I know what I was going to ask. I
16 apologize.

17 When you say it connects the sniffer to the cable
18 plant, are you talking about the cables that run from
19 the plant to people's houses, is that right?

20 A. That's correct.

21 Q. So it's not something -- you don't have to go into a
22 cable company's office and connect a piece of equipment
23 to that computer equipment in the office in order to
24 sniff traffic, isn't that right?

25 A. That's correct, you can do this inside a home or on

1 the street, wherever that coaxial cable is that's coming
2 from the houses in that neighborhood.

3 Q. So if I'm in my home and I have a sniffer program on
4 my modem and I'm sniffing traffic, whose traffic am I
5 going to see?

6 A. You will see all the traffic that is being sent on
7 that one node in that cable plant.

8 Q. Essentially my neighbors or people in my
9 neighborhood?

10 A. That's correct.

11 Q. In your experience, um, is there any reason to sniff
12 for MAC addresses for individuals to do this other than
13 to steal service?

14 A. I do not know of any other reason.

15 MR. BOOKBINDER: Your Honor, I'd like now to
16 use the second of the charts.

17 THE COURT: Okay. That's C1.

18 In fact, about how long do you think you'll be
19 with this chart?

20 MR. BOOKBINDER: Your Honor, if you can give
21 me a second, I'll check.

22 THE COURT: If it's going to be more than
23 about 5 minutes then --

24 MR. BOOKBINDER: Oh, yeah.

25 THE COURT: All right. I think we'll take the

1 morning break now and we'll resume at about 11:10.

2 The Court will be in recess for the jury.

3 (Jury leaves, 11:00 a.m.)

4 THE COURT: Okay. The Court is in recess
5 until 10 after 11:00.

6 (Recess, 11:00 a.m.)

7 (Resumes, 11:15 a.m.)

8 THE COURT: We will get the jury.

9 Do you have an estimate how long you'll be with
10 Mr. Kohler?

11 MR. BOOKBINDER: Oh, I'd say another 15
12 minutes, your Honor.

13 THE COURT: And will you have questions for
14 him as well, Mr. McGinty?

15 MR. MCGINTY: I will, your Honor.

16 MR. BOOKBINDER: Your Honor, before we get the
17 jury --

18 THE COURT: Yes. Yes. Dan --

19 Mr. Kohler, would you step down, please.

20 (Witness Steps down.)

21 THE COURT: Do you remember I said I was going
22 to deal with Ms. Lindquist first?

23 THE CLERK: Oh, I'm sorry, Judge.

24 THE COURT: All right. Let's bring in
25 Ms. Lindquist, please.

1 (Mr. Kohler leaves and Ms. Lindquist enters.)

2 (ISABELLA LINDQUIST, sworn.)

3 THE COURT: Would you please state your true
4 full name.

5 THE WITNESS: It's Isabella Lindquist.

6 THE COURT: And, Ms. Lindquist, do you
7 understand that I'm here -- we're here conducting a
8 criminal trial of Ryan Harris?

9 THE WITNESS: Yes.

10 THE COURT: And do you know Mr. Harris?

11 THE WITNESS: Um, I worked with him, yes.

12 THE COURT: All right. And do you understand
13 that you've been called as a witness and that the
14 parties want to ask you some questions essentially about
15 your dealings with Mr. Harris?

16 THE WITNESS: Yes.

17 THE COURT: And have you consulted a lawyer
18 about -- well, do you understand that you have a right,
19 under the Fifth Amendment of the United States
20 Constitution, not to answer any questions that might
21 tend to incriminate you?

22 THE WITNESS: Yes, I do.

23 THE COURT: And have you talked with a lawyer
24 about whether you wish to assert a Fifth Amendment right
25 not to testify unless you're given immunity in this

1 case?

2 THE WITNESS: I have.

3 THE COURT: And if you were asked, for
4 example, if you ever designed any software for
5 Mr. Harris, would you assert a Fifth Amendment right not
6 to answer that question?

7 THE WITNESS: I would.

8 THE COURT: All right. Well, I've been
9 educated about the fact -- and would you assert a Fifth
10 Amendment right to any questions about your dealings
11 with Mr. Harris?

12 THE WITNESS: Yes.

13 THE COURT: All right. Well, I'm satisfied
14 that, based on what's been represented to me and now
15 this testimony, that the evidence that Ms. Lindquist has
16 is relevant to this case. As I understand it, it would
17 also tend to incriminate her. She has a valid basis for
18 asserting a Fifth Amendment right to relevant
19 questions. The Department of Justice has applied for an
20 immunity order in proper form and therefore I'm entering
21 that order. We'll give a copy to Ms. Lindquist and the
22 parties.

23 Ms. Lindquist, we're not finished with the witness
24 who is testifying when we took a break, but I understand
25 you'll be the witness after we finish that testimony.

1 So why don't you just take a minute and -- actually read
2 that order.

3 Or has the government showed you a copy of that
4 before I signed it?

5 THE WITNESS: Um, I don't believe so. No.

6 THE COURT: Okay. Why don't you read it.

7 THE WITNESS: (Reads.)

8 THE COURT: It's really the last paragraph
9 that's the most important.

10 THE WITNESS: (Reads.) Okay, I've read it.

11 THE COURT: And do you understand that this
12 order means that you do not have a Fifth Amendment right
13 not to answer questions, however, um, you have generally
14 the protections provided by the Fifth Amendment as a
15 result of this order. It means that nothing you say can
16 be used in a criminal prosecution against you and
17 nothing derived from anything you say in your testimony
18 can be used in a criminal prosecution against you except
19 if you're charged with perjury, with making
20 intentionally false statements in your testimony.

21 Do you understand that?

22 THE WITNESS: Yes, I do.

23 THE COURT: All right. Step back in the
24 hallway then and we'll get you when the present witness
25 is complete.

1 THE WITNESS: Thank you.

2 (Witness steps out.)

3 THE COURT: You can bring Mr. Kohler back and
4 also the jury.

5 (Mr. Kohler takes stand.)

6 (Jury enters, 11:25 a.m.)

7 THE COURT: Ladies and gentlemen, when I
8 excused you, I forgot there was another matter relating
9 to this case that I had to deal with before you came
10 back. I've dealt with it. We're ready to resume. But
11 that's why you got the extended break.

12 (Laughter.)

13 MR. BOOKBINDER: Mr. Kohler, if you could now
14 step down, I'd like you to use the second of these
15 charts for your testimony.

16 (Witness moves to easel.)

17 Q. You were talking, before the break, about changing
18 MAC addresses to get free service and sniffing MAC
19 addresses. Could you use this chart, which may be
20 helpful as an illustration, and explain what the numbers
21 listed as 1 and 2, what those steps are, um, as depicted
22 on that chart?

23 A. Step 1 is where a user, in their home, would be
24 accessing the internet and the cable modem is being
25 powered up for the first time and it processes -- and

1 the cable modem will send its MAC address from the modem
2 to the cable provider's plant.

3 Q. Let me stop you for one second. When you say
4 "user," can you -- for the purposes of this chart, we're
5 talking about a legitimate internet subscriber, correct?

6 A. That is correct.

7 Q. Okay. Go ahead.

8 A. Then in Step 2, um, a different user would be using
9 a device called a "sniffer," represented in a box down
10 here, that's connected to the cable plant somewhere in
11 the neighborhood, and a sniffer would then be listening
12 for that MAC address to be sent across the coaxial
13 cable. The sniffer would capture that MAC address and
14 then it would be stored up here in a computer that the
15 sniffer was connected to.

16 Q. So the sniffer could just be someone's cable modem,
17 if it was configured to have a sniffer program on it,
18 correct?

19 A. That's right.

20 Q. Okay. So the person who's doing the sniffing gets
21 these MAC addresses. Do they get just one or would they
22 get a series of them?

23 A. Um, they would get a series. They would see all the
24 MAC addresses that are on that node or neighborhood that
25 they're connected to.

1 Q. Okay. Would they be able to just take one of these
2 MAC addresses that they sniff from their node and use it
3 to get free internet?

4 A. Um, they would need to do several things first in
5 order to get free access to the internet, but eventually
6 that is possible.

7 Q. And using one of the MAC addresses from their own
8 node?

9 A. Um, using one of the addresses from the same node,
10 that will not work if they program a different cable
11 modem and try to connect to that same node.

12 Q. So if they're sniffing these addresses from the
13 neighborhood, from the node, and you're saying they
14 can't use one of those to get internet access. Why is
15 that?

16 A. The CMTS that's located in the cable plant's
17 offices, represented down here at the bottom of the
18 picture, will be keeping track of which MAC addresses
19 are actively in use from that one node, and if the CMTS
20 will detect a duplicate MAC address from a different
21 modem, it will prevent that second modem from gaining
22 access to the internet.

23 Q. So if they can't use MAC addresses that they sniff
24 on their own node, then what does someone have to do, in
25 that situation, in order to get a MAC address that they

1 can use?

2 A. They would have to take the MAC they sniff from one
3 node and use it on a different node in a different
4 neighborhood or even a different part of the country.

5 Q. So they could physically take the modem and move
6 somewhere else and use one of those MAC addresses they
7 sniffed, is that correct?

8 A. That is correct.

9 Q. And in your experience what's another way that they
10 could get MAC addresses that they could actually use?

11 A. Um, we have seen MAC addresses for sale posted on
12 the internet or Motorola's actually seen these MAC
13 addresses, sheets of MAC addresses being sold at swap
14 meets in some cases.

15 Q. Have you seen users trading MAC addresses with each
16 other as well?

17 A. We have seen that as well.

18 Q. Like: "I sniffed in my node. I can't use them. I
19 can trade them with you," who lives somewhere else, "and
20 I can use the ones you sniffed and you can use the ones
21 I have"?

22 A. Yes, I have seen that.

23 Q. Now -- okay. So let's assume the user has now
24 traded or gotten a MAC address from a different area,
25 um, now he has one that will work for his modem, is that

1 right?

2 A. That's correct.

3 Q. Then what happens next, what are Steps 3 and 4?

4 A. Step 3 is where that MAC address will then be
5 programmed into a cable modem, so essentially you're
6 changing the MAC address of that modem to the MAC
7 address that was sniffed, and then that modem will then
8 be connected to a different node. And if it is on a
9 node that has a legitimate MAC address from a different
10 user that's already paying, he will be able to gain
11 access to the internet without paying for service.

12 Q. So the idea is that if you change your MAC address
13 to an address of someone in a different neighborhood, a
14 different part of the country, now you can use that on
15 your modem to get internet service, correct?

16 A. That's correct.

17 Q. Does the provider know that you're in Boston using
18 one MAC address and I'm in New York using the same MAC
19 address, would that be a problem?

20 MR. MCGINTY: Objection.

21 THE COURT: Um -- sustained, in that form.

22 Q. Is it possible for two people in different areas of
23 the country to use the same MAC address?

24 A. Yes, it is.

25 Q. Just not the same neighborhood?

1 A. That is correct.

2 MR. BOOKBINDER: Thank you. You can sit back
3 down. I think we're done with this chart.

4 (Witness returns to seat.)

5 Q. Are you familiar with the term "uncapping"?

6 A. I am.

7 Q. What does that mean, as applied to modems?

8 A. "Uncapping" is a method that is used to modify the
9 information that's in the cable modem's configuration
10 file which determines how much bandwidth that cable
11 modem is authorized for use on a particular cable
12 provider's network.

13 Q. When someone uncaps their modem, what do they do
14 with those bandwidth limits?

15 A. The uncapping process enables the cable modem to
16 eventually achieve the same bandwidth that the cable
17 modem is capable of with no restrictions on how much
18 bandwidth they can actually use. It will go up to the
19 maximum limits of the cable modem's design.

20 Q. And setting aside uncapping, if someone's a
21 residential user, let's say, they've got your basic
22 level of service and they want faster service, is there
23 a way they can pay for that?

24 A. Um, there is. Most cable operators will offer
25 different levels of bandwidth that you can pay for and

1 get access for.

2 Q. So "uncapping" is an alternative to paying for it?

3 A. Yes, it is.

4 Q. You, um, mentioned earlier that you had done some
5 investigation into ways that people could change their
6 MAC addresses to steal service, correct?

7 A. Correct.

8 Q. Okay. And you say you were looking on -- among
9 other things, you looked on the internet for that
10 information, correct?

11 A. Yes.

12 Q. Were there certain websites that you found offering
13 products and information about cable modem hacking?

14 A. Yes, there were.

15 Q. All right. Were there any that were actually
16 selling products that people could use?

17 A. Yes, there was.

18 Q. How many were there, many of those or just one?

19 A. Um, I only found one that was actively selling
20 modified cable modems.

21 Q. What was that website?

22 A. It was TCNISO.

23 Q. So what were the other websites doing?

24 A. Um, they were --

25 MR. MCGINTY: Objection.

1 THE COURT: What did he observe that they were
2 advertising?

3 MR. BOOKBINDER: That's right.

4 THE COURT: To that question, the objection is
5 overruled.

6 A. They were offering methods for modifying
7 configuration files to uncap the bandwidth limitations.

8 Q. And what was different about the TCNISO site?

9 A. They were offering not only those same methods for
10 how an end-user could modify their configuration files,
11 but they were also offering, um, kits that a user could
12 buy to reprogram their cable modem and change the MAC
13 address. They were also offering modified cable modems
14 that had already been changed with a different MAC
15 address for sale.

16 Q. Did you buy any of those products?

17 A. I did.

18 Q. What were they?

19 A. I bought one cable modem, which was a Model Number
20 SB-5100. I also bought a kit that was called a "Black
21 Cat" kit that consisted of a software program that was
22 called "Sigma." It also consisted of a cable and a
23 little circuit card, a computer circuit card that was
24 used to reprogram the cable modem.

25 Q. In addition to those products that you bought, were

1 you able to download for free other -- or were you able
2 to download, after having bought those products, other
3 pieces of software --

4 A. I was.

5 Q. -- from that website?

6 A. Yes.

7 Q. So software updates, essentially?

8 A. Yes.

9 Q. Did you test the products that you bought to see if
10 they worked on Motorola modems?

11 A. Yes.

12 Q. Did they?

13 A. They did.

14 Q. What is it that they allowed you to do?

15 A. The methods that were used to modify the bandwidth,
16 the uncapping method, we verified that that process
17 worked. Um, we also verified that the method of
18 reprogramming the cable modem's MAC address and changing
19 it, using the Black Cat kit, also worked. We verified
20 also that the updated versions of software, referred to
21 as Sigma, would also be programmed into the cable modem
22 and change its MAC address as well as doing uncapping
23 methods as well.

24 Q. When you say that changing the MAC address worked,
25 once you changed the MAC address, what did it allow?

1 A. It allowed the cable modem to have a different MAC
2 address, which we verified if it was a MAC address from
3 another cable modem that had already been granted access
4 to the internet, and it was attached to a different node
5 or a different neighborhood, and it was now able to gain
6 internet access for free.

7 Q. When you talked about the uncapping, you said that
8 that worked. What did it do with the caps that the
9 service provider might put on the modem?

10 A. The uncapping method is removing the caps
11 completely. So it was able to take a cap limit that the
12 cable operator had downloaded to the modem and the
13 configuration file and completely remove it so now the
14 cable modem could transmit and receive at maximum
15 bandwidth rates that the modem was physically designed
16 to support.

17 Q. How would you compare those maximum rates to the
18 sort of basic subscriber rates that residential users
19 get?

20 MR. MCGINTY: Objection.

21 THE COURT: The maximum rates for what,
22 please?

23 MR. BOOKBINDER: The maximum rates that the
24 uncapped modems got to the basic rates or the basic
25 speeds that regular subscribers get.

1 THE COURT: The objection is overruled.

2 A. Um, the basic rates that the cable operator would
3 offer to an end-user were typically 1 to 2 to 3 megabits
4 per second, in the downstream direction, that's from the
5 internet to the user's computer, and then the reverse
6 direction, the upstream typical rates that the cable
7 operator would support were somewhere in the
8 neighborhood of 100 Kilobits, so 1,000 times less than a
9 megabyte. So 100 to 200 Kilobits per second from the
10 computer back to the internet.

11 When you uncap the cable modem, the upstream
12 limits now go from the 1 to 200 limit I was mentioning
13 all the way up to 10 Megabits per second in the upstream
14 direction. So again almost 1,000 times faster than what
15 the cable operator had limited the modem.

16 Q. So the uncapped modem is about 1,000 times faster
17 than a regular standard capped modem?

18 A. In the upstream direction, from the user's computer
19 up to the internet.

20 Q. What would be -- if someone were using one of these
21 uncapped modems on a residential area, on their node,
22 what would be the impact if they were uploading material
23 at that kind of speed on other people in the node?

24 A. The concept of the upstream bandwidth from one cable
25 modem to the CMTS and the cable operator's back office

1 is it -- is combined with all the other cable modems
2 that are on that node, and if you allow one cable modem
3 to transmit at a higher speed, then the other cable
4 modems on that node will not be able to transmit their
5 information from the user's computer to the end-user.

6 Q. So they wouldn't be able to transmit at all?

7 A. Um, they wouldn't be able to transmit at all or --
8 it depends on the amount of information that's being
9 transmitted, but conceptually, yes, they would not be
10 able to transmit at all.

11 Q. Um, now, I want to ask you -- I asked you earlier
12 that --

13 THE COURT: Could I just clarify one thing?
14 Does uncapping also increase the downloading
15 speed?

16 THE WITNESS: It does.

17 MR. BOOKBINDER: Yes, your Honor.

18 Q. And when you say "increase in download speed," what
19 percentage increase or what increase do you see in the
20 download speed?

21 A. Um, the percent of increase would go from the 1 to 2
22 Megabits per second all the way up to 40 Megabits per
23 second. So you're talking about an increase of 3 to 40
24 times more.

25 Q. This investigation that you did into these modems --

1 into modem hacking, was there an internal reason for
2 Motorola to do this, um, setting aside anything you
3 might have heard from -- did Motorola have an internal
4 reason to be concerned about this problem?

5 A. Yes.

6 Q. What was that?

7 A. Motorola has a product reputation that delivers
8 products that are working to the specifications that we
9 advertise them for and what we're selling them for and
10 what we warranty them for. When we see evidence in the
11 industry that these modems are being modified and being
12 used for an unintended purpose, um, that will put an
13 image to Motorola that says we're not delivering quality
14 products or we're not delivering the products that we
15 intended to provide to the cable operator. The cable
16 operator is also not going to be willing to buy more
17 products from Motorola if the products we're selling
18 today are not working and providing the service that we
19 guarantee they will provide.

20 Q. In addition to testing the modems that you bought,
21 um, did you also tests modems that were provided to you
22 by the FBI in approximately December of 2008?

23 A. Yes.

24 Q. And how many modems did you get from the FBI at that
25 point?

1 A. Two modems.

2 Q. And what were they, if you can remember?

3 A. They were a Model Number SB-4200 and a Model Number
4 SB-5100.

5 Q. When you tested those modems, what did you find?

6 A. I found both modems had been modified and
7 modifications to the SB-4200 modem were such that the
8 modem had been changed with a different firmware program
9 inside the cable modem.

10 THE COURT: I'm sorry. A different what?

11 THE WITNESS: A different firmware program,
12 also called a software program.

13 A. The SB-5100 modem had also been modified with a
14 different software or firmware program inside of it.
15 These firmware programs were providing a new
16 functionality that would prevent the cable modem from
17 being controlled by the cable operator.

18 Q. Let me just stop you for one second. You say
19 they've been modified by different firmware programs.
20 What were the programs?

21 A. The programs were the Sigma software programs.

22 Q. Okay. Go on. So you said they would prevent them
23 from -- well, go ahead.

24 A. They would prevent the cable modem from being
25 controlled by the cable operator. Um, one of the

1 functions was to actually deny the cable modem from
2 getting a new software program from the cable operator.
3 If the cable operator wanted to provide a new software
4 image, the Sigma software would actually prevent the
5 cable modem from actually accepting it, so that it would
6 retain its unauthorized software program. It would also
7 advertise to the cable operator a different version of
8 software, um, making it look like it had a legitimate
9 authorized version of software loaded in the modem when
10 actually it did not.

11 Q. Based on the investigation that Motorola did into
12 this cable modem hacking, did you make any changes to
13 your modems to try to prevent this kind of modification?

14 A. We did.

15 Q. And was that, um, something you did once or, um,
16 more than once over a period of time?

17 A. We made many changes over a period of time.

18 Starting from the year, the early 2000s, when we first
19 became aware of the methods being published on the
20 internet for uncapping methods, um, we made changes to
21 try and prevent that method from working. Then when the
22 MAC address cloning method was published, we made,
23 again, numerous changes to try and prevent that method
24 from working.

25 Q. Were these, um, changes successful in preventing

1 these kinds of modem hacking?

2 A. They were successful for a period of time, but
3 eventually we saw new methods being published on the
4 internet that were, again, doing something even more
5 different to try and enable the changes that we had put
6 in place to try and prevent the original changes from
7 working.

8 Q. When you say you saw them published on the internet,
9 where specifically?

10 A. Um, we saw these changes published on the TCNISO
11 website.

12 Q. And, again, by "published," are you talking about
13 through written articles or are you talking about actual
14 products?

15 A. We saw both, published on their website in the form
16 of instructions and we also saw new products, new
17 modified cable modems and the kits, which are referred
18 to as the "Black Cat kit," we saw that being advertised
19 for sale, too, which would be used to get around some of
20 the recent changes that Motorola put in place.

21 Q. When you saw these new products out there, did you
22 buy some of those?

23 A. I did.

24 Q. And did you test them to see if they were, in fact,
25 successful in getting around your new protections?

1 A. I did.

2 Q. Were they successful?

3 A. They were.

4 Q. And how effective were these software updates or
5 product updates in getting around the security measures
6 that Motorola had put in?

7 A. They were very effective.

8 MR. BOOKBINDER: Your Honor, if I may just
9 have a moment?

10 (Pause.)

11 MR. BOOKBINDER: No further questions.

12

13 CROSS-EXAMINATION BY MR. MCGINTY:

14 Q. Mr. Kohler, good morning.

15 A. Good morning.

16 Q. When a cable modem first gets powered up, um, it
17 looks for, as I understand it, a signal downstream from
18 the CMTS.

19 Am I using the language correctly?

20 A. Yes.

21 Q. And as I understand that, when I turn on my modem
22 and I have it powered, it goes up the coaxial cable
23 toward the company end, which would be the CMTS, as I
24 understand it -- well, do I understand that correctly?

25 A. Yes.

1 Q. And in doing that, it would be looking for a
2 downstream signal coming the other way meeting it from
3 the CMTS.

4 Do I understand that right?

5 A. Yes.

6 Q. Now, in order for that to happen, doesn't it have to
7 be the case that that coaxial cable is connected to the
8 CMTS?

9 A. Eventually the coaxial cable in the neighborhood
10 that the cable modem is connected to, um, has to make
11 its way to the CMTS.

12 Q. And when I say "connected to the CMTS," I mean as in
13 a live connection. Well, let me back off and ask you
14 this.

15 If I lose my cable service and the cable company
16 comes to terminate my service, does it disconnect my
17 coaxial cable at a tree, at a pole, at someplace where
18 it's either mechanical or electronically disconnected?

19 A. Yes.

20 Q. Now, if that were to happen and I was aggravated
21 they were cutting off my service and I tried to plug
22 this in and make this work, it would not have power
23 coming down that coaxial cable, so it wouldn't work, am
24 I right?

25 A. That's correct.

1 Q. So if I move into an apartment, let's say, and in
2 the apartment there's a coaxial cable box that's on the
3 wall and the last customer, um, lost his service, didn't
4 pay, whatever it is, um, so that coaxial cable isn't
5 connected to the CMTS because it's been electronically
6 disconnected or physically disconnected, um, then I
7 can't make a connection between my modem and the CMTS,
8 right?

9 A. That is correct.

10 Q. So I can't get -- using that method, I can't get
11 free service?

12 A. If the cable is not physically connected to the
13 CMTS, you will not be able to get service.

14 Q. Now, um, a second thing is, as I understand it, this
15 modem has a CPU inside.

16 Do I understand that right?

17 A. Yes.

18 Q. Now, a CPU is, um, a component of a computer,
19 correct?

20 A. Correct.

21 Q. It's made -- it's dedicated to a narrow task of
22 ensuring that the processing of a signal coming from the
23 CMTS, so that it can appropriately be converted, so that
24 it can be read into my computer as a useful electronic
25 signal, correct?

1 A. That is one of its functions, yes.

2 Q. So I need to get a modem in order to make that
3 transition between the coaxial cable and my computer,
4 correct?

5 A. Correct.

6 Q. Now, I can go to, um, a whole bunch of stores to get
7 a modem, am I right?

8 A. There are several retail stores in the U.S. that you
9 can buy cable modems from, yes.

10 Q. Okay. And I can go to Radio Shack, for example, and
11 I can get modems that are priced anywhere from \$150 down
12 to \$30, \$40, that would be the range, am I right?

13 A. I'm not sure I agree with the low end of the range,
14 but the upper end of the range is about right, yes.

15 Q. Okay. So if I try to get a low-end modem, what
16 would it cost me, generally?

17 A. A brand-new, low-end cable modem, in a retail store,
18 I believe, is advertising for \$79 today.

19 Q. Now, when I buy my modem, I can connect it to my
20 computer and, so long as I'm a customer of a cable
21 company, I can get cable service, am I right?

22 A. If you're a paying customer of that cable company,
23 that is correct.

24 Q. Now, using the hypothetical we talked about before,
25 my service was disconnected, I now have some cash,

1 they're going to restore my service, so they come and
2 they make the connection. When they make the
3 connection, I now have a live coaxial cable connection
4 that's possible for me to use, am I right?

5 A. That's correct.

6 Q. Now, when I connect my modem to that, the cable
7 company recognizes my MAC and it gives me service, am I
8 right?

9 A. That is correct.

10 Q. And it gives me service consistent with what it is
11 that I have, um, contracted with with the cable company,
12 am I right?

13 A. That is correct.

14 Q. And they put -- and they make certain promises about
15 what they can provide me in terms of service, am I
16 right?

17 A. There are terms in the contract that would stipulate
18 the type of service you are going to receive, that is
19 correct.

20 Q. Now, um, you are aware, are you not, that cable
21 companies frequently view their representation as to
22 what kind of service you're going to get as a, um -- as
23 a guide to what it is they're going to provide. Fair to
24 say?

25 A. That's fair to say, yes.

1 Q. So if they say to me, as a customer, "You're going
2 to get 1 megabyte," right, I might get that, I might get
3 something else?

4 A. I'm not an expert in the contract terms of the cable
5 companies, but that is generally what my understanding
6 is of how they provide service.

7 Q. So my service may be less than what I thought I was
8 going to get, am I right?

9 A. Um, again I'm not an expert in what the cable
10 companies provide in their contracts, but they will
11 typically provide a number that is the maximum limit
12 that you could obtain.

13 Q. Now, there are ways of testing my modem speed, my
14 broadband speed on the internet, are there not?

15 A. There are methods, yes.

16 Q. So I can go on and see whether I'm getting what I'm
17 paying for, fair to say?

18 A. Yes, it's fair to say.

19 Q. Okay. Let's say I'm not getting -- and I know
20 you're not a cable expert here in terms of what the ISPs
21 are doing, but if an ISP doesn't provide me the service
22 that I understood I was going to be getting in this
23 contract, um, and I want to uncap, I want to lift that
24 lid that they're putting on me, there are things I can
25 do in order to uncap my computer to get greater service,

1 am I right?

2 A. There are -- I'm not sure I understand the question
3 other than there are ways you can modify a cable modem
4 to remove the caps.

5 Q. Right. Um, when you talked about the "config
6 files," those are the configuration files, those are
7 sort of the parameters of what the service is that a
8 given modem is going to get delivered, am I right?

9 A. That's correct.

10 Q. Okay. Now, there are different config files for
11 different service levels, am I right?

12 A. That is correct.

13 Q. The config file is sent down to the customer through
14 the coaxial cable, correct?

15 A. Correct.

16 Q. And it puts a brake on what it is that person might
17 get in the way of service, am I right?

18 A. Correct, it sets the maximum limits that that user
19 would be receiving.

20 Q. Now, there are multiple different config files, are
21 there not?

22 A. Yes, there are.

23 Q. So if I'm unhappy with my config file, I can select
24 other config files to get me the service that I thought
25 I was getting under my contract, isn't that true?

1 THE COURT: You mean can?

2 MR. MCGINTY: I can, yes.

3 THE COURT: Yeah, as a practical matter,
4 technologically it can be done?

5 A. Under that explanation, yes, technology allows you
6 to put in different config files in the cable modem.

7 Q. So if I use a modified cable modem, I have the
8 option of what you describe as "lifting a lid right off
9 the top" in terms of cable speed, right?

10 A. Yes.

11 Q. I have the option of getting exactly the service
12 that I thought I was getting from my contract with my
13 ISP, correct?

14 A. You can do that technology-wise, yes.

15 Q. So my uncapping then would be elevating my service
16 to what I was supposed to be getting, fair to say?

17 A. I'm not sure I would agree with that.

18 Q. Well, you are a provider of a significant piece of
19 hardware to the cable industry, correct?

20 A. Yes.

21 Q. And, um, as such you have a significant interest in
22 touting your product, would you say?

23 A. Yes, we have quality products that we offer for sale
24 to cable operators.

25 Q. Now, um, the product you offer is a product that has

1 a -- what appears to be a single method of
2 authentication, the MAC address. Would it be fair to
3 say -- and I'm a lay person, so I have to ask you.

4 Is it fair to say that the security you provide,
5 through your modem and your company, rests on a single
6 means of authentication of customer content, namely the
7 MAC address?

8 A. The MAC address is the primary method for
9 authorizing service in a cable modem.

10 Q. Now, a MAC address is a number that's stamped on the
11 bottom of a cable modem, or on the side of it, correct?

12 A. Correct.

13 Q. So if I want to take down this MAC address, do you
14 know of any law that prevents me from writing it down?

15 A. No.

16 Q. Do you know of any law that prevents me from sharing
17 it with Mr. Bookbinder?

18 A. No.

19 Q. How about putting it on the internet?

20 A. No.

21 Q. How about sniffing it?

22 THE COURT: Well, as a practical matter, at
23 this point, he's not an expert on the law, and the
24 jury's going to get the law from me, so this is not a
25 line of questions that ought to be pursued. If there's

1 something you'd like me to instruct the jury on, you can
2 bring the law to my attention and I'll deal with it.
3 But basically the jury should disregard the testimony
4 they just heard about what the law is.

5 Q. So, as I understand it, there are -- a MAC is an
6 identifier for a modem, correct?

7 A. Correct.

8 Q. It's also an identifier for an iPad, right?

9 A. Correct.

10 Q. For a laptop?

11 A. Correct.

12 Q. For a router?

13 A. Correct.

14 Q. So if -- so a MAC is an identifier for a piece of
15 computer hardware, would that be fair to say?

16 A. Correct, the term "MAC address" is used to identify
17 every physical interface that is attached to, um, an
18 electronic piece of equipment, whether it be a cable
19 modem, a laptop computer, or an iPad, the physical
20 connection has a MAC address that's unique for that
21 connection.

22 Q. And for that connection, for example, the CMTS has a
23 MAC, correct?

24 A. It has many MAC addresses.

25 Q. Okay. So each hardware step along the way there's a

1 MAC, correct?

2 A. That is correct.

3 Q. Now, the MAC that is on the interface between the
4 modem and a CMTS, the cable company, um, that MAC, um,
5 is an HFC MAC, is it not?

6 A. Yes, it is.

7 Q. And that's the pathway from the modem to the CMTS,
8 right?

9 A. Correct.

10 Q. And there's also the MAC that is on the computer
11 side, which is the CPE MAC, correct?

12 A. Correct.

13 Q. And that's the path from the modem to the computer
14 itself, am I right?

15 A. Correct.

16 Q. Now, these MACs help to guide packets, in the right
17 place, through the right hardware, ultimately to the
18 end-user, is that right?

19 A. Correct.

20 Q. So to direct traffic on the internet, correct?

21 A. Correct, that's one of their functions.

22 Q. And they can also be used to identify the user, am I
23 right?

24 A. Um, I'm not sure I understand your question.

25 Q. They can be used -- a MAC that is the -- the MAC

1 that is the CPE MAC is the MAC number that identifies my
2 hardware if I'm the person on the computer or on the
3 iPad, correct?

4 A. Correct, it identifies the physical port or
5 connection that you're connecting to.

6 Q. Linked to the IP address, it tells the world who I
7 am, true?

8 A. It tells the end destination of where the
9 information is either being sent to or being sent from.

10 Q. And IP networks maintain mapping between the IPs and
11 MAC addresses, am I right?

12 A. Correct.

13 Q. And the mapping helps tell -- if people are looking,
14 it helps tell who that end-user is when you travel using
15 the IP and the MAC, it tells who the end-user is, am I
16 right?

17 A. It tells the end destination of where the
18 information is again being sent to or is being sent
19 from.

20 Q. Now, MACs are used by lots of companies for lots of
21 reasons, legitimately, Correct?

22 A. Correct.

23 Q. You were talking about how a MAC can be used for
24 diagnostic purposes in a cable modem, right?

25 A. A MAC could be used for diagnostic purposes? I

1 believe I was talking about a MAC address, how it was
2 used in a cable modem to identify it to the CMTS.

3 Q. Now, are you aware that Google uses it for its
4 locator service, to triangulate locations. Are you
5 aware of that?

6 A. I'm not aware of that.

7 Q. Are you aware of the general use of MACs for
8 purposes of locator services, computer-based locator
9 services that we have on BlackBerries and on iPads. Are
10 you aware of that?

11 A. I'm not aware of that.

12 Q. Are you aware generally of the use of MAC addresses
13 in business generally in the internet for purposes of
14 mapping consumer purchasing practices and so forth?

15 A. I am not aware of that technology.

16 Q. Are you aware that on the internet there are
17 sniffing tools like "Wireshark"?

18 A. I am aware of that.

19 Q. Okay. And "Wireshark" is an open-source sniffing
20 tool, correct?

21 A. Yes, it is.

22 Q. "Open source" meaning that anybody who wants to use
23 it can use it, am I right?

24 A. That is correct.

25 Q. "TCP Dump" is another capability that on the

1 internet has endless numbers of MAC addresses, am I
2 right?

3 A. I'm not familiar with that program name.

4 Q. Are you aware that the original owners of Wireshark
5 was the University of California at Berkeley?

6 MR. BOOKBINDER: Objection. Relevance.

7 Q. Are you aware of that?

8 THE COURT: Well, there's an objection. I
9 have to rule on the objection. I'm trying to discern
10 the possible relevance.

11 (Pause.)

12 THE COURT: I'll overrule the objection. You
13 can answer that.

14 A. I'm not aware of it.

15 Q. You said there were lots of places to get MACs?

16 A. Yes.

17 Q. And what you talk about was war driving, um, swap
18 meets, trading on postings on various websites on the
19 internet and so forth, correct?

20 A. Correct.

21 Q. In fact, I can go on the internet and get as many
22 MACs as I want with a click of a button, isn't that
23 true?

24 A. You can get MAC addresses that have already been
25 issued on the internet today, that is correct.

1 Q. Now, as I understand it, um, a factory MIB is
2 embedded in every Motorola device, is that correct?

3 A. That is correct.

4 Q. Do I understand correctly that in your Motorola
5 firmware you have programmed in the capability of
6 changing MAC devices and MAC addresses?

7 A. We have programmed in the capability to program the
8 MAC address in the factory. So that is the purpose of
9 the factory MIB.

10 Q. There's a program on your computer that's called "CM
11 Factory HFC MAC ADDR." Are you familiar with it?

12 A. I'm familiar with the name vaguely.

13 Q. Isn't it true that that program, on Motorola modems,
14 is the program that permits direct or remote changing of
15 the MAC address associated with every single Motorola
16 modem?

17 A. I believe that's the location of where the MAC
18 address is stored.

19 Q. Okay. Do you also understand that there is a
20 capability that Motorola has embedded in the modems to
21 itself change the MAC address?

22 A. The capability I'm aware of is the Motorola modems
23 have the capability of programming the MAC address into
24 that location in memory.

25 Q. Can you tell the jury, yes or no, whether you know

1 whether the capability of changing a MAC is programmed
2 into a Motorola modem?

3 A. (Pause.) I don't believe the capability is
4 programmed into the modem to change the MAC address.

5 Q. You said, "I don't believe." The question is, do
6 you know whether the, um, Motorola modem has programmed
7 in it the capability of changing the MAC identifier of
8 that modem?

9 A. No, I do not believe that's the case.

10 Q. Well, I'm sorry, um, you said, "I don't believe" --

11 THE COURT: I think he's saying --

12 Are you saying, to your knowledge, that capability
13 is not programmed in?

14 THE WITNESS: That is correct.

15 THE COURT: Go ahead.

16 Q. Now, you mentioned that, um, with respect to the,
17 um, TCN modems that you had tested, you said that they
18 added new functionality to prevent the modem from being
19 controlled by the cable operator.

20 Did I understand that correct?

21 A. That is correct.

22 Q. The design of the cable modem is intended to ensure
23 that the cable company has control over the box. Am I
24 right?

25 A. That is correct.

1 Q. Not the customer, the cable company, correct?

2 A. Correct.

3 Q. Now, if, um, if this thing doesn't work on my desk,
4 do you understand the instructions to be: "Shut it
5 off. Wait a few minutes. Reboot. And if that doesn't
6 work, call the cable company." Correct?

7 A. That is one of the methods of troubleshooting, yes.

8 Q. Okay. Um, what other methods of troubleshooting are
9 there?

10 A. The cable company has equipment that they can take
11 into the neighborhood and try and diagnose problems that
12 might be present on the cable plant in that area.

13 Q. But I want to do it myself. Motorola doesn't want
14 me to do it, does it?

15 A. Um, Motorola does not provide the capability for the
16 end-user to do that level of diagnostic investigation,
17 no, to the end-user.

18 Q. This modem is controlled by the cable company at the
19 cable company end, correct?

20 A. Correct, they are providing high-speed internet
21 service to that cable modem over their cable plant to
22 that cable modem.

23 Q. It controls what speed I get, does it not?

24 A. Yes, it does.

25 Q. It controls what functionality I get, does it not?

1 A. I'm not sure I understand what you mean by
2 "functionality"?

3 Q. Well, are you familiar with filters that the cable
4 companies use to prevent users from running certain
5 kinds of FTP or HTTP websites from their own computer?

6 A. I am aware of filters that can be configured in the
7 cable modem, yes.

8 Q. Okay. And those filters can be shot downstream from
9 the cable company to tighten down service that I get,
10 correct?

11 A. That is one of the options that a cable operator
12 has, yes.

13 Q. And the cable companies, through this modem, also
14 have the ability to block ports, correct?

15 A. That is correct.

16 Q. And since I don't know what this is, as I understand
17 it, ports are, um, sort of channels of communication
18 through a cable modem, fair to say?

19 A. Yes.

20 Q. And various internet traffic goes through various of
21 these channels or ports aiming to the destination being
22 either my computer or the site that I'm trying to
23 communicate with, correct?

24 A. Correct.

25 Q. The cable company has the ability to remotely shut

1 down a port on my modem preventing that traffic,
2 correct?

3 A. Correct.

4 Q. It has the ability to tighten it down and slow my
5 connection to that network site, correct?

6 A. Um, in the example you're using it wouldn't slow it
7 down, it wouldn't prevent it from communicating at all
8 if the filter was enabled.

9 Q. And it has other ways of, um, what's the word,
10 "throttling" service?

11 A. Um, I believe you're referring to "bandwidth
12 limiting" or "cap limiting" the bandwidth rates. So,
13 yes, it has that capability.

14 Q. Well, what I'm actually referring to is you're
15 familiar with a decision involving Comcast and Vitmar,
16 are you not?

17 MR. BOOKBINDER: Objection.

18 THE COURT: Sustained, subject to hearing
19 something at sidebar.

20 Yeah, are you talking about a legal decision?

21 MR. MCGINTY: A legal decision.

22 THE COURT: Yeah, if the jury's going to hear
23 about a legal decision and principles, they need to hear
24 it from the judge, not from the witness.

25 Q. Um, are you aware of the practice of the ISP,

1 Comcast, in throttling service from certain internet
2 websites?

3 A. I have read articles in the press about some of
4 those cases, yes.

5 Q. And the capability of doing that is called "last
6 mile capability," correct?

7 MR. BOOKBINDER: Objection. Foundation.

8 THE COURT: I'll see counsel at sidebar.

9

10 AT THE SIDEBAR

11 THE COURT: What is the point of all of this?

12 MR. MCGINTY: The ultimate point of this is
13 that a customer can have an interest in changing and
14 altering firmware of the cable company and the ability
15 to choke that off or prevent that is from the cable
16 modem company's capability, it's their product that does
17 that.

18 THE COURT: I'm sorry, from the cable
19 operator's?

20 MR. MCGINTY: No, the capability of Motorola
21 to sort of -- Motorola creates the capability for the
22 bandwidth throttling, the program throttling, the port
23 closing, and all of this.

24 THE COURT: I think you developed that.

25 So what's the problem with the immediate

1 question?

2 MR. BOOKBINDER: Because the basis for what
3 he's talking about is articles he's read in the press.

4 MR. MCGINTY: Well --

5 THE COURT: Well, a couple of things. First
6 of all, in certain circumstances an expert can rely on
7 articles and learned treatises, things like that, in his
8 opinion, and you can ask him about his opinion, but it's
9 -- well, up until the last few questions, you know, I
10 think you're at least communicating to me that, you
11 know, there is certain technology and you're suggesting
12 that maybe the devices Mr. Harris's company produced
13 could be used for purposes other than getting internet
14 service for free, and that makes sense. I mean, it's
15 relevant. But this, at the moment, is obscure to me.

16 What more do you want to ask him and we'll see if
17 there are any problems with it?

18 MR. MCGINTY: Um --

19 THE COURT: Now that you've learned all of
20 this about internet service, you don't want to be the --
21 I remember last week I said you sounded like the girl
22 that knew how to spell "banana," but didn't know when to
23 stop. But I'm not telling you you can't go on. Just
24 what's the point?

25 MR. MCGINTY: The view in my office generally

1 is I'm the last person who should say anything about
2 this.

3 THE COURT: Well, you know now.

4 MR. MCGINTY: Um, well, I am going to be
5 asking about firmware and whether a customer could have
6 an interest in developing his own firmware or using
7 firmware that creates a capability that the cable
8 company doesn't want. That's sort of it.

9 THE COURT: A capability like what?

10 MR. MCGINTY: The capability would be to, um,
11 change packet sizes for gamers, it would be to -- you
12 know, basically to, um, sort of change the experience
13 and not let it be controlled by the cable company.

14 THE COURT: Well, I'll see what the government
15 thinks, but I don't know that he's an expert on that,
16 you know, sort of the incentives or possible motives of
17 gaming.

18 Does the government object?

19 MR. BOOKBINDER: To the question?

20 THE COURT: What's that?

21 MR. BOOKBINDER: It would depend on the
22 question. I am inclined to.

23 MR. MCGINTY: If I say to him, um, "you can
24 control packet size, the size of packets as they go down
25 the coaxial cable through the modem," I assume it's

1 permissible?

2 THE COURT: That you can do. Okay?

3 MR. MCGINTY: I'm not going to -- believe me,
4 I've reached the limits of my understanding of this.

5

6 (In open court.)

7 THE COURT: Okay. Mr. McGinty is going to ask
8 a different question.

9 MR. MCGINTY: Could I just have a moment, your
10 Honor?

11 THE COURT: Yeah.

12 (Pause.)

13 Q. Now, do you also understand that the capability in
14 the modem would prevent an internet service provider to
15 change speeds or to reduce speeds within a node based
16 upon traffic, on customer demand for broadband during
17 peak user hours?

18 A. I'm not an expert on how the cable operator would
19 manage their bandwidth uses on their plan.

20 Q. Well, I'm not asking that, I'm asking whether your
21 modem has the capability of permitting cable companies
22 to, during peak hours, change the speed of a customer's
23 bandwidth?

24 A. A cable modem has the configuration file that would
25 control the upstream bandwidth that the cable modem is

1 authorized to transmit. So the cable operator could
2 modify a config file to change the cap rates. They can
3 do that dynamically, yes.

4 Q. Would a customer -- does a customer have a way to
5 change the functionality of the modem, to change the
6 packet size of packets as they're processed through this
7 modem?

8 A. To my knowledge the end-user does not have that
9 capability to change that function in the cable modem.

10 Q. If I'm a gamer and I want to change my packet size
11 to change my gaming experience, do you provide me -- as
12 a cable modem manufacturer, do you provide me with the
13 functionality to permit me to do that?

14 A. No, not to my knowledge.

15 (Pause.)

16 MR. MCGINTY: May I have a moment, your
17 Honor?

18 THE COURT: Yes.

19 (Pause.)

20 MR. MCGINTY: Nothing further. Thank you.

21 THE COURT: Is there any redirect?

22 MR. BOOKBINDER: Yes, there is, your Honor.

23 (Pause.)

24 MR. MCGINTY: Oh, I'm sorry. May I ask one
25 more question?

1 THE COURT: Yes. You can ask it from right
2 there.

3 MR. MCGINTY: Okay. Thank you.

4 Q. On the 5100 modem that you examined, it did not have
5 a sniffer in it, did it?

6 A. No, it did not.

7 Q. Thank you.

8 MR. MCGINTY: Thank you, your Honor.

9

10 REDIRECT EXAMINATION BY MR. BOOKBINDER:

11 Q. Mr. McGinty asked you some questions earlier about
12 what happens if a, um, cable company physically
13 disconnects the wire to the house at some point. In
14 your experience is that what cable companies do if
15 someone, for example, says, "You know what? I don't
16 want to pay Comcast anymore, I'm just going to cancel my
17 service." Do they come out and physically disconnect
18 the cable?

19 A. Typically they do not.

20 Q. All right. What about if I say, um -- I have
21 Comcast TV, cable TV, and also internet, and I say, "You
22 know what? I don't want to pay for the internet
23 anymore, I'm just going to keep the cable TV." In that
24 case does Comcast continue to send signals to my house?

25 A. Yes, they do.

1 Q. They'd send the cable TV signal, correct, obviously,
2 because I still pay for that service?

3 A. Correct.

4 Q. And is the potential for internet service still in
5 that wire as well?

6 A. Yes, it is.

7 Q. So let's assume, in that situation, I stop my
8 internet service, I stop paying for that, and then I get
9 a hacked modem and I plug that in. Is that modem going
10 to see an internet signal and have the ability to get
11 internet service?

12 A. Yes, it will.

13 Q. And then Mr. McGinty asked you some questions about
14 bandwidth limitations or what he called "throttling,"
15 correct, do you remember those?

16 A. Yes.

17 Q. Are there some, um, circumstances where some
18 end-users might not get the maximum speed that their
19 cable company advertises that they're going to get?

20 A. Yes, there are.

21 Q. And what are those kinds of circumstances, when
22 would that happen?

23 A. Um, those circumstances will typically happen when
24 there are many households trying to access the internet
25 at the exact same time of the day and in those cases the

1 physical limitations of the cable operator's network,
2 the cable plant, will actually limit how much data can
3 be transmitted over that cable plant by any one of those
4 users in that neighborhood.

5 Q. So, um, to use Mr. McGinty's example, I'm paying
6 for, you know, 1 megabyte per second, um, and it's a
7 really crowded time and everybody's on at the same time,
8 so I might only get half, I'm going to get slower
9 service, is that right?

10 A. That is potentially correct, yes.

11 Q. Okay. So let's assume then I decide I don't want
12 that, I'm unsatisfied with that, and I get one of these
13 hacked cable modems and I uncap, and then I get on the
14 exact same situation, the same amount of traffic. Am I
15 going to get faster than that half a megabit service
16 with that uncapped modem?

17 A. Um, typically you will not, um, it depends on how
18 the internet access that you are trying to use at that
19 time is compared to all the other homes in the
20 neighborhood at that time. Theoretically you could get
21 all of the internet access at that time or it could be
22 shared across all the homes in the neighborhood and you
23 could get just the same amount, just less.

24 Q. So the problem is essentially in the pipe that's
25 bringing the internet to me?

1 A. That is correct, the limitation is the physical pipe
2 that is coming from the cable operator to that
3 neighborhood, it only holds so much data and has to be
4 shared with all the homes in that neighborhood.

5 Q. Is this a problem that cable operators bring to you,
6 a situation where they say, "Hey, there are, you know,
7 so many people on this particular node that sometimes we
8 can't provide, um, you know, as much or as fast a
9 service as we advertise"?

10 A. Yes, it is.

11 Q. What do you do in those situations?

12 A. We work with the cable operators to analyze how much
13 traffic they are seeing on that particular node or
14 neighborhood and if it is exceeding the capacity of that
15 neighborhood, we will do what is called a node split
16 where we will then divide up the homes in that
17 neighborhood into two separate nodes and then provide,
18 you know, those separate nodes more bandwidth, um, so
19 the homes that are connected to those nodes can then get
20 more bandwidth on the peak times.

21 Q. Do you have any, um --

22 MR. BOOKBINDER: I'm sorry. If I could just
23 have a minute, your Honor?

24 (Pause.)

25 Q. Did you -- do you have any personal involvement in

1 any kind of a study that was done on this issue of
2 whether cable companies were providing the kinds of
3 service that they were advertising?

4 A. Yes, I did.

5 Q. What was that? Could you just describe that
6 briefly.

7 A. The FCC, um, provided a study or wanted to conduct a
8 study of internet access in the United States and they
9 contracted with a company called --

10 MR. MCGINTY: Objection.

11 THE COURT: Yeah, can I see counsel at
12 sidebar.

13

14 AT THE SIDEBAR

15 THE COURT: What is the basis of the
16 objection?

17 MR. MCGINTY: Um, it's outside his expertise.
18 I've got to -- I'm trying to think of a different way to
19 put it.

20 THE COURT: I sustain the objection.

21 MR. MCGINTY: My --

22 THE COURT: I sustain the objection because
23 you're asking about legal decisions. They've got to get
24 their law from me. And I'm not sure what the relevance
25 of this is, you know, and whether what he's being asked

1 about is within the scope of the expert disclosures.

2 (Interruption in courtroom.)

3 THE COURT: Excuse me. Please don't talk.

4 (Pause.)

5 MR. BOOKBINDER: Your Honor, what he's going
6 to say -- when we asked him about this recently, but in
7 response to Mr. McGinty's arguments that he's been
8 making about this last night, um, we provided
9 Mr. McGinty a report of it this morning.

10 THE COURT: Did you give it to me?

11 MR. BOOKBINDER: I don't think so, but I have
12 an extra copy.

13 THE COURT: Go ahead.

14 MR. BOOKBINDER: I apologize, your Honor. I'm
15 cramming to do this, preparing the witnesses --

16 THE COURT: I understand.

17 MR. BOOKBINDER: But he was the one
18 represented by this study that was done to determine
19 were -- did this, in fact, provide what they paid for?
20 And he participated in the project and at the end of the
21 day, generally speaking, that the conclusion was that
22 they are. And Mr. McGinty made this an issue and so
23 frankly -- as to whether or not the practice was --

24 THE COURT: Well, why isn't the study
25 hearsay? If you're offering it for the truth of whether

1 internet service providers are giving customers what
2 they're buying, what they're paying for, then it's
3 hearsay. He's not basing some opinion on it, so it
4 wouldn't come in under 8036 or whatever the number is
5 these days.

6 MR. BOOKBINDER: Your Honor, to the extent
7 that he has reviewed the data that was produced during
8 the study, he has formed his own opinions.

9 THE COURT: I guess I'd say a couple of
10 things.

11 One, that it's being offered for the truth. I
12 don't know what opinion he would give. Two, you're
13 going to have a cable operator testify and also give
14 expert opinion and it might be more appropriate then, if
15 it's permissible at all. Three, while -- the fact that
16 somebody may have, um, a motive that's different than
17 the motive charged in the indictment for using those
18 modified modems, for example, you know, is relevant, and
19 it's the government's contention that it's the only
20 legitimate use, it has only one use, and that's
21 illegitimate, which is to get free service. So, you
22 know, this, through the right witness, it has some
23 relevance, but the fact that it might be used for
24 something other than a wire fraud scheme doesn't mean it
25 wasn't used for a wire fraud scheme in this case and

1 that's the heart of the case or it's the evidence on
2 that. But it doesn't sound to me like this witness has
3 admissible evidence on this issue.

4 MR. BOOKBINDER: Okay.

5
6 (In open court.)

7 THE COURT: The objection has been sustained.

8 Q. Okay. Going back to the scenario we were talking
9 about where I'm a subscriber, I'm paying for, um, 1
10 Meg-per-second service and I'm getting something less
11 than that and I'm dissatisfied with it, so I get one of
12 these TCNISO modems that you've testified about, um,
13 would that, um -- and I uncap them. Would that bring me
14 back up to that 1-Meg speed or would it remove the
15 limits altogether?

16 A. It would remove the limits altogether if you removed
17 the caps.

18 Q. And at that point what kind of speed would I be
19 getting?

20 A. In the SB-4200 modem, for example, the upstream
21 speed limit, the maximum limit is 10 megabits per
22 second, the downstream speed is 40 megabits per second.

23 Q. And that's what I would be getting?

24 A. If the cable plant had that much bandwidth available
25 at that time, that's what you would essentially be

1 getting, yes.

2 MR. BOOKBINDER: No further questions.

3 THE COURT: Is there any recross?

4 MR. MCGINTY: Yes, your Honor.

5

6 RE CROSS-EXAMINATION BY MR. MCGINTY:

7 Q. My question was, if I use a config file to limit the
8 service that I get, that would not be uncapping
9 infinity, that would be uncapping to the point of the
10 service parameters that that config file creates, am I
11 right?

12 A. That is correct.

13 Q. Now, you testified, as I understand it, that cable
14 companies don't come out and disconnect their lines. Do
15 I understand that right?

16 A. I believe I said that it's not common practice that
17 if you disconnect service, a cable company will come out
18 and disconnect the cable.

19 Q. Okay. So the cable company -- your understanding of
20 the practice is that cable companies don't close off
21 their lines when they terminate customer service, am I
22 right?

23 A. That is the typical practice, to my understanding,
24 yes.

25 Q. So essentially they are leaving my apartment, after

1 I'm terminated, with a live line. Do I understand that
2 right?

3 A. That is correct.

4 Q. And, um, I -- if I understood your testimony, it was
5 that, um, physical limitations on the node can choke
6 down the amount of bandwidth that I, as a customer, get
7 during peak times, am I correct?

8 A. That is one area where the limitations can be, yes.

9 Q. Okay. So I get a representation that I'm going to
10 get 1 Megabit and during peak hours, whoosh, that
11 collapses, right?

12 A. That is one possibility, yes.

13 Q. Do you understand that cable companies practice --
14 well, do you understand that cable companies, um, from
15 time to time overbook their lines?

16 MR. BOOKBINDER: Objection.

17 THE COURT: Yeah, I don't -- I understand
18 we're going to have a cable operator coming to give
19 certain expert and fact testimony. I guess I'd say two
20 things. One, I don't think this is an appropriate area
21 to go into with this witness and particularly on
22 recross.

23 MR. MCGINTY: No further questions.

24 THE COURT: All right. Thank you, Mr. Kohler,
25 your testimony is complete.

1 The United States may call the next witness.

2 MS. SEDKY: Thank you, your Honor. The United
3 States calls Ms. Isabella Lindquist.

4 (ISABELLA LINDQUIST, sworn.)

5

6 *****

7 ISABELLA LINDQUIST

8 *****

9

10 DIRECT EXAMINATION BY MS. SEDKY:

11 Q. Good morning. Well, it's almost afternoon.

12 Could you tell us your name and spell your last
13 name for the record, please.

14 A. My name is Isabella Lindquist. My last name is
15 spelled L-I-N-D-Q-U-I-S-T.

16 THE COURT: Okay, Ms. Lindquist, pull that
17 microphone a little closer to you, speak into it loudly
18 and clearly, because your ultimate audience is in the
19 second row of the jury box.

20 THE WITNESS: Okay.

21 Q. And what city and state do you live in?

22 A. I live in Louisville, Kentucky.

23 Q. Could you tell us a little bit about your background
24 and what you do for a living right now?

25 A. Currently I'm working as an engineering consultant.

1 I do hardware and software, mostly, you know, device
2 drivers, things like that.

3 Q. And could you tell us a little bit about your
4 background with computers. When did you first get your
5 first computer?

6 A. Um, I believe when I was five or six and, um, I just
7 learned to program right away and I've really been into
8 it my whole life.

9 Q. Have you developed any special interests of certain
10 types of computer technology?

11 A. Yes, um, in particular I like embedded systems.

12 Q. And what is an "embedded system," what does that
13 term mean?

14 A. Um, an embedded system is a computer that is
15 contained within the device, such as, um, you know, a
16 phone is an example of an embedded computer, um, cable
17 boxes, modems, of course.

18 Q. And are you familiar with cable modem technology as
19 part of an embedded system?

20 A. Yes.

21 Q. When did you start first learning about cable modem
22 technology?

23 A. Probably around 2000, 2001.

24 Q. And how did you first start learning about it?

25 A. Um, a friend of mine I was working with at the time,

1 um, had -- on a side job, but he had his main job as the
2 Director of Broadband Operations for the local cable
3 company and so he was responsible for all the cable
4 modems.

5 Q. And by "broadband," what do you mean by that?

6 A. Um, fast internet service.

7 Q. And that would be cable internet service?

8 A. Yeah, cable internet.

9 Q. And where was this geographically, where was this
10 local internet provider?

11 A. It was in Louisville, Kentucky.

12 Q. And are you, um, familiar with a company called
13 TCNISO?

14 A. Yes.

15 Q. How did you first learn about TCNISO?

16 A. Um, the person that I just mentioned, who worked for
17 the cable company, um, told me about them.

18 Q. What did he tell you?

19 A. He told me --

20 MR. MCGINTY: Objection.

21 THE COURT: Sustained. And let me just
22 explain, although maybe you understood it.

23 If there's an objection, you should not answer.

24 If I say "sustained," it means the objection is
25 meritorious and you should not answer the question. If

1 I say "overruled," that means the objection is not
2 meritorious and you should answer the question. Okay?

3 THE WITNESS: All right.

4 MS. SEDKY: Let me re-ask that.

5 Q. Did you ever provide any assistance to this friend
6 of yours?

7 A. Yes.

8 Q. And could you tell us about that.

9 A. Um, he asked me to look into, um, some information
10 that was available on the internet about how to increase
11 your cable modem speed.

12 Q. And did that information pertain to a certain
13 company?

14 A. Yes, um, TCNISO, although I don't believe they were
15 a company at the time.

16 Q. And what was the issue about the speed, from your
17 understanding?

18 A. Um, he explained it as, um, they provided some
19 information as to how you can increase your speed, um,
20 increase the speed of the modem greater than what the
21 cable company was permitting them to be.

22 Q. And are you familiar with a term called "uncapping"?

23 A. Yes.

24 Q. Is that what you just described?

25 A. Yes.

1 Q. And what's your understanding of why you were asked
2 to help this person deal with TCNISO? Why did he ask
3 you for help?

4 A. Um, well, I guess, he said that, you know, if too
5 many people were doing that, it could disrupt a number
6 of things. Um, he just wanted to know if there was any
7 way that he could detect it and perhaps put a stop to
8 it.

9 Q. And what did you do to help him?

10 A. Well, I went to TCNISO website and, um, you know,
11 read some information and then, based on that
12 information, modified my modem and I was able to
13 increase the speed.

14 Q. When you say you went to the website to get some
15 information, did you download anything?

16 A. Not at the time, no, I just read.

17 Q. And did you have any software that they used or you
18 just read their instructions?

19 A. At the time I just read the instructions.

20 Q. And what did you end up concluding?

21 A. Um, well, my tests were successful, I was able to,
22 um, you know, get onto the internet and, you know,
23 increase the speed and, um, the person at the cable
24 company that I knew was able to detect it.

25 Q. After testing TCNISO's products initially -- by the

1 way, what time frame was this, if you can recall?

2 A. It was still early 2001.

3 Q. Did you ever begin working for TCNISO after that?

4 A. Yes.

5 Q. And when was that?

6 A. Um, probably about a year later, either late 2001 or
7 early 2002, I believe.

8 Q. And how did you first come to start working for
9 them?

10 A. Um, DerEngel, I guess it's Ryan Harris, he contacted
11 me over the internet.

12 Q. And exactly do you recall what format he contacted
13 you in?

14 A. Yeah, he used the IRC messaging service.

15 Q. And what is "IRC"?

16 A. It's just kind of a chat service where people can
17 log in and talk to one another, do texts.

18 Q. Do you remember when this was, approximately, when
19 did Mr. Harris or DerEngel first reach out to you?

20 A. Like I said, about 2002.

21 Q. Do you have any idea how he found you, how did he
22 know who you were?

23 A. Um, I believe I was referred by someone else over
24 the internet.

25 Q. And how did he introduce himself, what name did he

1 use at the time?

2 A. He used "DerEngel."

3 Q. What does that mean, if you know?

4 A. I believe it's German for "The Angel."

5 Q. How long did he use this alias with you before he
6 told you what his real name was?

7 A. Well, it seems like a long time, but I believe about
8 a year.

9 Q. During that one-year period, how frequently were you
10 communicating with DerEngel?

11 A. Um, almost daily.

12 Q. And during that period did he know your actual real
13 name?

14 A. Yes.

15 Q. And did he know your actual real physical address?

16 A. Um, yes, I believe at some point he did.

17 Q. So let's step back to that first time he contacted
18 you.

19 What did he ask you to do?

20 A. Um, the very first time he had said that another
21 group had -- another cable group had found a way to
22 change the MAC address of the modem and he was wondering
23 if I did that or could find some way to do that as well.

24 Q. So he already had a way to, in your words, uncap the
25 modem --

1 MR. MCGINTY: Objection. Leading.

2 THE COURT: Well, let's hear the whole
3 question. Go ahead.

4 Q. So this was going to be a new feature he was having
5 you add?

6 A. Um, yes, it was something that didn't previously
7 exist, as far as I know.

8 Q. And before we get into the specifics of your
9 different projects at TCNISO, I'd like to have you tell
10 the jury a little bit about who was involved in the
11 operation and what their roles were, and let's start
12 with you. What was your role?

13 A. Okay. My role was -- I was basically a software
14 engineer, I wrote all the software, I examined the
15 modems, you know, did most of the physical stuff as far
16 as taking them apart, trying to find, you know, how they
17 worked and getting the software and analyzing it.

18 Q. And before I follow up with what you specifically
19 did, who were the other key players involved?

20 A. Um, at the time I believe it was DerEngel, of
21 course, and I think, um, Craig Phillips.

22 Q. So let's go back to your role. As the software --
23 is it fair to say you were the software developer?

24 A. Yes.

25 Q. And, um, did you write software that was

1 incorporated into cable modems?

2 A. Yes.

3 Q. And did you also periodically update your software?

4 A. Yes.

5 Q. And who directed you, who told you what programs to
6 write?

7 A. Um, it was mostly directed by DerEngel.

8 Q. And how did you get the materials you needed to do
9 your tasks?

10 A. Um, people within the group would send me stuff and,
11 you know, DerEngel would send me stuff sometimes, too,
12 and, um, some of the people that just kind wound up, you
13 know, they heard about it or something would send me
14 stuff or occasionally send me modems and stuff.

15 Q. And what were your overall years of involvement, if
16 you remember, from start to finish, with TCNISO?

17 A. Um, I believe, of course it started in about 2001
18 and early 2002 and it ended in, um, about 2006 or maybe
19 early 2007.

20 Q. During that time period, roughly, how often would
21 you communicate with DerEngel?

22 A. Um, very frequently. Like I said it was almost
23 daily for at least the first five years or so.

24 Q. And what methods or method did you use to
25 communicate with him?

1 A. Um, IRC, we later switched to a different chat
2 program called MSN, which is --

3 Q. Excuse me. I'm sorry. I interrupted you.

4 A. And eventually we also talked on the phone, I
5 believe, several times, too.

6 Q. When you say "IRC," how do you know where to go?
7 How does IRC work?

8 A. Well, IRC, it's kind of an open system, almost
9 anybody can run a, you know, a post or hub for people to
10 connect to you -- we refer those to servers. So almost
11 anybody can run a server under several different
12 networks. I just happened to be on one of the bigger
13 ones called "bf.net," and to get on to that, you would
14 just download a client of some type and just log in.

15 Q. Are you familiar with the chat room called "Pound
16 Surfboard"?

17 A. Yes.

18 Q. What is that?

19 A. Well, I believe that was TCNISO's kind of official
20 chat channel for people to come in and talk about cable
21 modems and stuff.

22 Q. When you were talking about IRC chat with
23 Mr. Harris, did you ever use the Pound Surfboard chat
24 room to communicate with him?

25 A. Um, occasionally, but very rarely.

1 Q. So you were doing a different IRC chat room?

2 A. No, I was talking to him in a private message,
3 usually.

4 Q. I see. And could you explain how that differs from
5 the main chat room communication?

6 A. Well, a private message is pretty much like a
7 one-to-one communication between two people versus a
8 chat room, which is kind of like a party line and
9 everyone gets to read what everyone else writes.

10 Q. Up until today have you ever seen Ryan Harris in
11 person?

12 A. No.

13 Q. Did you ever try to suggest that you meet with him
14 in person?

15 A. Um, one time I kind of hinted that I was in Florida
16 and, um, and that was about it. He didn't seem to want
17 to meet with me at the time. So I just kind of forgot
18 about it.

19 THE COURT: I'm sorry. I couldn't hear what
20 you said.

21 THE WITNESS: I said one time I was in
22 California and I think I was probably near where he was
23 at the time, so I kind of mentioned where I was and, um,
24 you know, I kind of, sort of hinting that we could meet
25 up, but he didn't seem too interested in it, so I kind

1 of dropped it.

2 Q. And just to clarify the record, the first time you
3 answered the question, I think you said Florida?

4 A. Oh, yeah, I'm sorry. I didn't mean to say
5 "Florida," that was a total mistake.

6 Q. Well, what's the correct state?

7 A. The correct state is California. I was in Los
8 Angeles.

9 Q. And do you recall approximately when this was?

10 A. In 2009.

11 Q. Okay, but let's turn to Mr. Harris. Could you tell
12 us about what his role was in the company?

13 A. Well, he was the CEO, kind of the leader, very
14 enthusiastic in guiding people and coordinating things.

15 Q. Did he do any programming himself?

16 A. Yes.

17 Q. What type?

18 A. Um, mostly he worked on the user interfaces, like
19 the graphical part, the part that people, you know,
20 actually interact with within the software.

21 Q. Do you know whether he had any role in the website?

22 A. Um, yes, I believe he, you know -- um, of course he
23 was controlling or in charge of the website.

24 Q. Do you know if he had any role in the forums? Do
25 you know what the forums were?

1 A. Yes.

2 Q. What were the forums?

3 A. Well, the forums were a place where people could
4 leave messages, ask questions, and, um -- you know,
5 you'd post a message, get a response, you know,
6 whenever, and, um, there were several different like
7 categories of questions.

8 Q. What's your understanding of Harris's role, if any,
9 in these forums?

10 A. Well, he was a moderator and, um, I believe he, you
11 know, ran the server that posted the forums, too.

12 Q. Did he ever indicate to you -- without getting into
13 any of the content of the posts, did he ever indicate to
14 you that he had read the posts?

15 A. Yes.

16 Q. How did he indicate that to you?

17 A. Well, occasionally he would ask me to look at
18 certain posts where the users were having problems with
19 the software, that I might be able to help them with or
20 correct it if there was a software problem.

21 Q. Do you know whether he played any role on the Pound
22 IRC chat room?

23 A. Um, the Pound IRC?

24 Q. I mean -- I'm sorry. The Pound Surfboard IRC chat
25 room.

1 A. Yeah, he was a moderator there as well.

2 Q. And what about Craig Phillips, do you have any sense
3 of what his role was?

4 A. Um, I believe he was the Chief Financial Officer of
5 TCNISO.

6 Q. Did you ever speak with Mr. Phillips?

7 A. Yes.

8 Q. How frequently?

9 A. Um, infrequently, and it was mostly kind of towards,
10 you know, later on into it. But I'd say maybe once,
11 two, three times a week, to see what's going on.

12 Q. And what formats would you use to communicate with
13 him?

14 A. Um, I mean, the same ones. I think it was mostly
15 with him -- it was mostly IRC and over the telephone.

16 Q. And was it IRC within the Pound Surfboard or private
17 messages or both?

18 A. A little of both, private messages and IRC.

19 Q. What about "DSchocker," does that name ring a bell?

20 A. Yes.

21 Q. Who was "DShocker"?

22 A. Well, I remember it just being someone kind of
23 active in the surfboard channel, he was kind of always
24 willing to help people and, you know, he seemed like he
25 was just somebody who was always kind of around.

1 Q. Did you ever communicate with him directly?

2 A. Um, I talked to him on occasion, yes.

3 Q. And do you have any sense of what time period this
4 was that you were communicating with Mr. -- well,
5 "DShocker." Do you know his real name?

6 A. No. Um, I really can't remember the specifics,
7 but I know it was at least like 2003 to about when they
8 -- about 2007 right until when the whole thing ended.

9 Q. And how would you describe his level of presence in
10 the chat rooms?

11 A. Um, it seemed like he was always around. Um, I
12 think at first he might have rubbed some people the
13 wrong way, I think he got the hand a few times, but he
14 always seemed to come back. Um, he was just very
15 active.

16 Q. Did -- was Ryan Harris frequently in the Pound
17 Surfboard chat room as well?

18 A. Yes, I've seen him.

19 Q. Did you ever see the two of them in the chat room at
20 the same time?

21 A. Yes.

22 Q. Do you have any reason to believe that DShocker was
23 using TCNISO products?

24 A. Um, I know he had some of the software.

25 Q. How do you know that?

1 A. Because he showed me -- well, he had some codes and
2 he often asked me questions about how it worked.

3 Q. Do you know if he was using it to steal service?

4 A. No, I don't know that particularly.

5 Q. So let's talk about your projects while you were
6 working at TCNISO.

7 You talked earlier about this MAC-changing
8 feature.

9 A. Uh-huh.

10 Q. What's a MAC address?

11 A. Um, a MAC address is a number that identifies the
12 modem within the, um, network.

13 Q. And, generally speaking, how would the MAC changer
14 work?

15 A. Well, the MAC changer would just simply allow you to
16 rewrite over whatever MAC address had been written to
17 the modem at the factory.

18 Q. From what MAC address to what MAC address?

19 A. Um, well, really the only practical thing to do
20 would be use a cloned MAC address or a MAC address of a
21 modem that's already in service.

22 Q. When you say a "modem that's already in service,"
23 what do you mean by that?

24 A. Well, I mean like a modem that's been activated by
25 the cable company and is, you know, able to send and

1 receive data through the cable company's network.

2 Q. So you mean a subscriber with an account?

3 A. Yes, that's one way to characterize it.

4 Q. And are you familiar with the term "MAC or modem
5 sniffing" or "MAC or modem cloning"?

6 A. Yes.

7 Q. And are those all synonymous with what you've just
8 described?

9 A. Yes, that's a way to describe that.

10 Q. And, generally speaking, what's the purpose of a MAC
11 changer?

12 A. Well, the purpose of a MAC changer, um, I guess,
13 would be to make one modem appear as another.

14 Q. In order to do what?

15 A. Um, in order to use that modem in place of the other
16 one. I mean, you could do one of two things, you could
17 either clone a modem you already have and, you know,
18 upgrade onto a different modem or you could clone a
19 modem that was being used by another customer and then
20 get service without paying for it.

21 Q. Did you eventually program this MAC changer as
22 Mr. Harris had asked you to?

23 A. Yes, I was sort of hired to do that.

24 Q. What was the program called?

25 A. Um, the original program, um, Sigma 1, I believe.

1 THE COURT: You know, actually, we've only got
2 about 5 more minutes and I have to go over with you the
3 witnesses for tomorrow.

4 MS. SEDKY: We can stop right now.

5 THE COURT: Okay, at this point we'll stop.

6 Ms. Lindquist, you're going to be excused when the
7 jury goes out and you'll need to come back at 9:00
8 tomorrow morning. Okay?

9 THE WITNESS: Okay.

10 THE COURT: Ladies and gentlemen, I'm going to
11 excuse you for today. I hope you can sustain your
12 perfect record of all getting here by 9:00. That's
13 great. But it's important.

14 Please continue to keep an open mind. Don't
15 discuss the case among yourselves or with anybody else.
16 Don't read or watch or listen to anything that may be in
17 the media. Don't communicate about the case through the
18 internet or any social media. And I'll talk to the
19 attorneys and I'll get from them a sense tomorrow of how
20 we're progressing as compared to the schedule that I
21 gave you when you were selected, so you can get -- so
22 you can be up to date, to the extent that we can be up
23 to date, as to when the evidence is likely to finish.
24 Okay?

25 The Court is in recess for the jury.

1 (Jury leaves, 12:55 p.m.)

2 THE COURT: Ms. Lindquist, you can go as well.

3 (Ms. Lindquist leaves.)

4 THE COURT: All right. Who do you expect the
5 witnesses realistically will be tomorrow?

6 MR. BOOKBINDER: Obviously, Ms. Lindquist will
7 finish up and next is Benjamin Brodfuehrer and then Jose
8 Larosa and William Madeira.

9 THE COURT: All right.

10 MR. BOOKBINDER: And, your Honor, it is
11 possible, depending on how things go and how long
12 Mr. McGinty has with each of them, it is conceivable we
13 could finish that before 1:00 tomorrow. Certainly, um,
14 Madeira and Larosa are short. I don't think we'll
15 finish a lot before 1:00, but it's possible.

16 The next witness after that is Nathan Hanshaw,
17 who, as you know, is in custody. We can have -- we can
18 ask the marshals if they can get him on the list for
19 tomorrow, but we had planned on him for Monday, so we
20 would be running ahead of schedule if we did finish.
21 But we can ask the marshals if they can get him here
22 tomorrow or not.

23 THE COURT: Are there witnesses after
24 Hanshaw?

25 MR. BOOKBINDER: The next witness after

1 Hanshaw would be the FBI agent, Mr. Russell.

2 THE COURT: Um -- are we pretty much on the
3 schedule you originally predicted?

4 MR. BOOKBINDER: We're right on it now and if
5 --

6 THE COURT: Yeah, I don't think you need to
7 bring Mr. Hanshaw in tomorrow. If we finish a little
8 before 1:00, um, I've got a sentencing tomorrow
9 afternoon that I need to get ready for, in any event.
10 So since we're pretty much on schedule -- famous last
11 words, um, then we won't bring in Mr. Hanshaw.

12 But after Mr. Hanshaw, it will be the two agents
13 and that will be it?

14 MR. BOOKBINDER: Yes.

15 THE COURT: All right.

16 At the moment, does the defendant anticipate
17 presenting any evidence?

18 MR. MCGINTY: Um, not at this time.

19 THE COURT: All right. So I'm going to work
20 on the jury instructions over the weekend because we
21 might get to the jury Tuesday or Wednesday, right?

22 MR. BOOKBINDER: If we continue on the pace
23 we're on now, I think we would be in a position to rest
24 certainly by Tuesday.

25 THE COURT: Yeah. Okay.

1 All right. And as I understand it, with regard to
2 Brodfuehrer -- and I will look at these before tomorrow
3 morning, there is an objection to Exhibit 8, the Sigma
4 video clip, on the grounds of relevance, 403, and I
5 don't know what the problem would be, and with the
6 Charter service map, which is Exhibit 9.

7 MS. SEDKY: Your Honor, we do not intend to
8 use Exhibit 9.

9 THE COURT: Okay, Exhibit 9 is out. You want
10 8?

11 MS. SEDKY: Yes, we do. There are three video
12 clips.

13 THE COURT: All right.

14 What's the problem with the video clips,
15 Mr. McGinty, why are they inadmissible?

16 MR. MCGINTY: Um, our view is that they're
17 irrelevant and they're cumulative.

18 THE COURT: Well -- and do I have the video
19 clips?

20 MS. SEDKY: You do, your Honor, they're
21 Exhibit 8, they're on a disk.

22 THE COURT: I know, but do I have a copy of
23 the disk?

24 MR. BOOKBINDER: If you don't, we can produce
25 it for you.

1 THE COURT: Well, why don't you give it to me
2 and I'll look at it before tomorrow.

3 How long will it take to look at?

4 MS. SEDKY: They're about 3 minutes apiece.

5 THE COURT: So about 10 minutes total?

6 MS. SEDKY: They're lettered A, B and C.

7 THE COURT: I'll look at it.

8 But I think you ought to prepare on the assumption
9 that I'm going to find them admissible since I think
10 anything that describes the operations of the Sigma
11 software, as its been described in the evidence, is
12 relevant and it just makes it more comprehensible. If
13 it's evidence of something that was being sold or
14 distributed by the company, it's going to be relevant.

15 MS. SEDKY: Your Honor, I believe there is one
16 extraneous video clip that we do not intend to offer on
17 that disk and so we could call your courtroom deputy
18 with more specificity about which of the three -- and I
19 believe there are four, but which ones we plan on
20 introducing.

21 THE COURT: All right. That would be
22 helpful. Okay. I'll see you at 9:00 tomorrow morning.

23 The Court is in recess.

24 (Adjourned, 1:00 p.m.)
25

C E R T I F I C A T E

I, RICHARD H. ROMANOW, OFFICIAL COURT REPORTER, do hereby certify that the forgoing transcript of the record is a true and accurate transcription of my stenographic notes, before Chief Judge Mark L. Wolf, on Thursday, February 23, 2012, to the best of my skill and ability.

/s/ Richard H. Romanow 11-06-12

RICHARD H. ROMANOW Date